



08048494

Received SEC

APR 18 2008

Washington, DC 20549

advance

change

PROCESSED

MAY 01 2008

THOMSON REUTERS

CURAGEN ANNUAL REPORT 2007

DEAR SHAREHOLDERS,

**CURAGEN ENTERED 2008 FOCUSED ON MOVING OUR TWO LEAD INVESTIGATIONAL PRODUCTS, CR011-vcMMAE AND BELINOSTAT, INTO THE ADVANCED STAGES OF CLINICAL DEVELOPMENT. WE ARE PLEASED TO REPORT THAT OUR INVESTMENTS IN THESE PROGRAMS HAVE BEGUN TO SHOW THAT BOTH CR011-vcMMAE AND BELINOSTAT APPEAR TO BE ACTIVE TREATMENTS FOR PATIENTS WITH CANCER. NOTHING GRATIFIES US MORE AT CURAGEN THAN WHEN WE LEARN THAT A PATIENT'S TUMOR TREATED WITH ONE OF OUR INVESTIGATIONAL DRUGS HAS STABILIZED, SHRUNK, OR DISAPPEARED — AND THAT IS HAPPENING!**

During the course of 2008, we hope to learn enough about the potential benefits of CR011-vcMMAE and belinostat to allow us to move our first product into the final stages of clinical development before submitting for approval from the FDA. Thereafter, we hope that our products will be on the market improving the lives of patients with cancer.

Our antibody-drug conjugate, CR011-vcMMAE, has made rapid progress in its first clinical development program where it is currently being tested in patients with metastatic melanoma, a very aggressive cancer with a poor prognosis. We plan to continue developing additional clinical data with CR011-vcMMAE during the course of 2008 so we can understand how to best evaluate it in the last phases of development, which can potentially lead it toward FDA approval and to the patients with advanced melanoma who are eagerly waiting for help.



**Timothy M. Shannon, M.D.**  
**President and Chief Executive Officer**

At the end of November 2007, we had a positive end-of-phase II meeting with the FDA regarding belinostat as a treatment for patients with an aggressive form of non-Hodgkin's lymphoma, known as peripheral T-cell lymphoma (PTCL) - a requirement for bringing belinostat into the last stages of development. We are now continuing to assess data from our ongoing Phase II trials while simultaneously preparing to begin the potentially pivotal study for belinostat in patients with PTCL. Belinostat has also shown promising activity in other types of cancer, such as ovarian and bladder cancer, which may provide additional market opportunities for this novel drug.

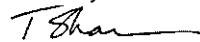
We expect that additional interest in these products will be generated over the course of 2008 as they move through development and closer to the market. As that occurs, we will assess our options to support late stage development and for marketing prepara-

tions via discussions with strategic partners who can assist us by providing resources and complementary capabilities.

Fortunately, we can do this from a position of relative financial strength for a small-cap biotech company, with adequate cash on hand that we believe can carry us forward into 2011.

As fellow shareholders, we believe our products will continue to demonstrate their potential value in the fight against cancer, and anticipate that our company, CuraGen, will reflect that increase in value. Thank you for your support and we look forward to updating you on our progress throughout this important year.

Sincerely,



Timothy M. Shannon, M.D.

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20549

**FORM 10-K**

(Mark One)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 or 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2007

**OR**

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 or 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission File Number 000-23223

**CURAGEN CORPORATION**

(Exact name of registrant as specified in its charter)

**Delaware**

(State or other jurisdiction of  
incorporation or organization)

**322 East Main Street,  
Branford, Connecticut**  
(Address of principal executive offices)

**06-1331400**

(I.R.S. Employer  
Identification No.)

**06405**

(Zip Code)

**Registrant's telephone number, including area code: (203) 481-1104**

**Securities registered pursuant to Section 12(b) of the Act:**

Title of each class

Name of each exchange on which registered

**Common Stock, \$0.01 par value**

**NASDAQ Global Market**

(excluding Preferred Stock Purchase Rights, \$0.01 par value)

**Securities registered pursuant to Section 12(g) of the Act:**

**None**

(Title of class)

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☐  
No ☒

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Exchange Act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of the registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☒

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See definitions of "large accelerated filer," "accelerated filer," and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer ☐ Accelerated filer ☒ Non-accelerated filer ☐ Smaller reporting company ☐

(Do not check if a smaller reporting company)

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act.). Yes ☐ No ☒

The aggregate market value of the registrant's voting shares of common stock held by non-affiliates of the registrant on June 29, 2007, based on \$1.97 per share, the last reported sale price on the NASDAQ Global Market on that date, was \$101,568,407.

The number of shares outstanding of the registrant's common stock as of February 29, 2008 was 57,805,401.

**Documents Incorporated by Reference**

Portions of the Registrant's definitive proxy statement for its 2008 Annual Meeting of Stockholders are incorporated by reference into Part III of this report.

**CURAGEN CORPORATION**

**FORM 10-K  
INDEX**

	<u>Page #</u>
<b>PART I</b>	
ITEM 1. BUSINESS .....	1
ITEM 1A. RISK FACTORS .....	13
ITEM 1B. UNRESOLVED STAFF COMMENTS .....	29
ITEM 2. PROPERTIES .....	29
ITEM 3. LEGAL PROCEEDINGS .....	29
ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS .....	29
<b>PART II</b>	
ITEM 5. MARKET FOR THE REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES .....	30
ITEM 6. SELECTED FINANCIAL DATA .....	32
ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS .....	34
ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK .....	48
ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA .....	48
ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE .....	79
ITEM 9A. CONTROLS AND PROCEDURES .....	79
ITEM 9B. OTHER INFORMATION .....	80
<b>PART III</b>	
ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE .....	81
ITEM 11. EXECUTIVE COMPENSATION .....	81
ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS .....	81
ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE .....	81
ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES .....	81
<b>PART IV</b>	
ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES .....	82

## PART I

### Item 1. *Business*

#### Overview

We are a biopharmaceutical development company dedicated to improving the lives of patients by developing novel therapeutics for the treatment of cancer. Our financial and human resources are currently focused on advancing our cancer treatments, belinostat and CR011-vcMMAE, through clinical development and toward commercialization. In addition, we maintain a portfolio of earlier stage assets, including proteins, antibodies and small molecules that represent potential treatments for cancer.

We are a Delaware corporation. We were incorporated in 1991 and began operations in 1993. Our principal executive office is located at 322 East Main Street, Branford, Connecticut 06405.

We are subject to the informational requirements of the Securities Exchange Act of 1934, as amended, or the Exchange Act, and, accordingly, file reports, proxy statements and other information with the Securities and Exchange Commission. Such reports, proxy statements and other information can be read and copied at the public reference facilities maintained by the Securities and Exchange Commission at the Public Reference Room, 100 F Street, N.E., Washington, D.C. 20549. Information regarding the operation of the Public Reference Room may be obtained by calling the Securities and Exchange Commission at 1-800-SEC-0330. The Securities and Exchange Commission maintains a web site (<http://www.sec.gov>) that contains reports, proxy and information statements and other information regarding issuers that file electronically with the Securities and Exchange Commission.

Our Internet address is [www.curagen.com](http://www.curagen.com). We are not including the information contained on our web site as a part of, or incorporating it by reference into, this Annual Report on Form 10-K. We make available free of charge on our website our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act, as soon as reasonably practicable after we electronically file such material with, or furnish it to, the Securities and Exchange Commission.

#### Strategy

Our goal is to generate value for our stockholders by focusing our resources on advancing our cancer treatments, belinostat and CR011-vcMMAE, through clinical development and towards commercialization. We are striving to become profitable by commercializing these therapeutics, which may include establishing partnerships with pharmaceutical and biotechnology companies for the development and commercialization of these therapeutics.

The following table summarizes our clinical drug development programs:

<u>Product Candidate</u>	<u>Classification</u>	<u>Therapeutic Area</u>	<u>Development Status</u>
Belinostat	Small molecule	Cancer treatment	Phase II
CR011-vcMMAE	Antibody-drug conjugate	Cancer treatment	Phase I/II

#### *Belinostat for the Treatment of Cancer*

Belinostat, previously referred to as PDX101, is a small molecule histone deacetylase, or HDAC inhibitor. In June 2004, we added belinostat to our pipeline through a license and collaboration agreement with TopoTarget. HDAC inhibitors represent a new mechanistic class of anti-cancer therapeutics that target HDAC enzymes, and have been shown to: arrest growth of cancer cells; induce apoptosis, or programmed cell death; promote differentiation; inhibit angiogenesis, or the growth of blood vessels; and sensitize cancer cells to overcome drug resistance. We are currently evaluating an intravenous and oral formulation of belinostat as a potential treatment for solid tumors and hematologic malignancies either alone or in combination with other anti-cancer therapies.

### *CuraGen-Sponsored Belinostat Clinical Development Program*

We are currently conducting a broad development program evaluating intravenous and oral belinostat for:

<u>Indication</u>	<u>Phase</u>	<u>Regimen</u>	<u>Initiation of Patient Enrollment</u>	<u>Status</u>
T-cell lymphomas	II	Monotherapy	January 2006	Enrollment ongoing. Updated results anticipated in the first half of 2008.
Ovarian cancer	II	Combination with paclitaxel and/or carboplatin	November 2006	Enrollment complete. Updated results anticipated in the first half of 2008.
Bladder cancer	II	Combination with paclitaxel and/or carboplatin	June 2007	Enrollment ongoing.
Solid tumors	Ib	Combination with 5-fluorouracil ("5-FU")	September 2005	Enrollment ongoing.
Soft tissue sarcoma	I/II	Combination with doxorubicin	May 2007	Enrollment ongoing.
Acute myeloid leukemia	I/II	Combination with idarubicin	August 2007	Enrollment ongoing.
Advanced solid tumors	I	Oral belinostat monotherapy	August 2006	Enrollment ongoing.
Multiple myeloma	II	Monotherapy or in combination with dexamethasone	January 2005	Enrollment complete. Results presented December 2006.
Multiple myeloma	Ib	Combination with Velcade®	March 2006	Enrollment terminated March 2007.
Multiple myeloma	Ib	Combination with Velcade®	March 2007	Enrollment terminated August 2007.

#### *Phase II Trial Results for the Treatment of T-cell Lymphoma*

In December 2007, we provided a clinical and regulatory update on intravenous belinostat for the treatment of patients with T-cell lymphoma including peripheral T-cell lymphoma, or PTCL, and cutaneous T-cell lymphoma, or CTCL. Updated preliminary results on a total of 32 patients, consisting of 12 patients with PTCL and 20 patients with CTCL, were presented. Two of 10 evaluable patients with PTCL achieved a complete response, or CR, and four additional patients had stable disease, or SD, lasting a median of 14 weeks (range 12-23 weeks). Assessments for duration of response are ongoing with CR durations of 18 and 21 weeks at the time of presentation. In addition, three of 19 evaluable patients with CTCL achieved an objective response, including one CR and two partial responses, and an additional 8 patients had SD. The CR duration is beyond 55 weeks with follow-up assessments ongoing. 71% of patients had an improvement in skin burden of CTCL as demonstrated by a decrease in Severity-Weighted Assessment Tool, or SWAT score. Enrollment is continuing into the study with a target of approximately 34 patients for each type of lymphoma. We anticipate that updated interim results from this trial will be reported during the second quarter of 2008.

We also announced in December 2007 that the preliminary PTCL results from the ongoing Phase II trial were submitted to the U.S. Food and Drug Administration, or FDA, as part of an End-of-Phase II meeting held on November 29, 2007. Based on the meeting with the FDA, we plan to submit a clinical trial protocol to the FDA under a Special Protocol Assessment, or SPA, and anticipate initiating a registrational clinical trial for PTCL during the second half of 2008. We currently anticipate that the registrational trial will be an uncontrolled, open-label clinical trial that will enroll approximately 80 to 100 patients with a primary endpoint of objective response rate and secondary endpoints including duration of response, progression free survival, and overall survival.

#### *Phase II Trial Results for the Treatment of Ovarian Cancer*

In October 2007, we provided an update on clinical trial results that were presented on intravenous and oral belinostat at the 2007 AACR-NCI-EORTC International Conference on Molecular Targets and Cancer Therapeutics. Updated Phase II results from our ongoing Phase II open-label trial evaluating a dose regimen consisting of belinostat in combination with carboplatin and paclitaxel, referred to as BelCaP, were reported in October 2007. Data on 23 patients, including efficacy data for 16 patients who had available pre- and post-baseline assessments of tumor, suggested BelCaP was generally well tolerated in patients with relapsed ovarian cancer. Reduction in tumor size was seen in 15 of 16 patients by radiologic assessment. As of the date of presentation, objective responses by Response Evaluation Criteria in Solid Tumors, or RECIST, were observed in 8 patients, including 2 confirmed partial responses and 6 additional responses that were pending radiologic confirmation. Thirteen additional patients had treatment ongoing with continued radiologic assessment of tumor to determine best response. Enrollment in this trial has been completed and we anticipate that results will be reported during the second quarter of 2008.

#### *Phase I Monotherapy Results with Intravenous Belinostat*

In November 2005, we reported results from a Phase I trial on intravenous belinostat as a single agent for the treatment of advanced solid tumors. Results from a total of 42 patients suggested that the most common adverse events were fatigue, nausea, vomiting and phlebitis, or vein inflammation, with no significant hematological toxicities noted. Based on the dose-escalation safety data, the dose of intravenous belinostat for Phase II monotherapy efficacy studies was determined to be 1000 mg/m<sup>2</sup> for five days every three weeks. In December 2005, we reported safety and clinical activity results from a Phase I trial on intravenous belinostat for the treatment of advanced hematologic tumors. In this trial, belinostat was generally well-tolerated with the most common adverse events being fatigue, nausea and vomiting.

#### *Phase I Results of Intravenous Belinostat in Combination*

Results from our Phase Ib dose-escalation trial evaluating intravenous belinostat in combination with paclitaxel and carboplatin for advanced solid tumors were reported in November 2006. The data from the 23 patients treated demonstrated that belinostat was well-tolerated when administered in combination with standard doses of carboplatin and paclitaxel, with no dose limiting toxicities encountered and no grade 4 adverse events noted. This trial was advanced into a Phase II study evaluating the combination of intravenous belinostat in combination with paclitaxel and carboplatin for the treatment of patients with recurrent ovarian cancer, which is discussed below.

In June 2007, we reported Phase Ib dose-escalation results evaluating intravenous belinostat in combination with 5-fluorouracil, or 5-FU. Results on 25 patients with advanced solid tumors indicated that the combination of intravenous belinostat plus 5-FU is generally well tolerated. Two dose limiting toxicities, including one Grade 3 stomatitis and one Grade 3 angina were reported in the highest dose group evaluating 1000 mg/m<sup>2</sup>/day belinostat plus 1000 mg/m<sup>2</sup>/day 5-FU. Of the 23 evaluable patients, a total of seven patients achieved SD (range 2 – 8 cycles), with two patients on treatment as of June 2007, and no objective responses noted. As of March 2008, enrollment is being completed in this trial to determine whether belinostat in combination with 5-FU has any effect on the expression of thymidylate synthase in tumor tissue, although further development of this combination regimen is currently not anticipated.



In August 2007, we also announced that we were preparing to initiate a Phase I/II clinical trial evaluating belinostat in combination with the idarubicin for the treatment of acute myelogenous leukemia, or AML. The study is being conducted at multiple sites in the European Union. Up to 70 patients will be enrolled and will receive intravenous treatment in one of two regimens. Patients will either receive intravenous belinostat administered once daily for five days in combination with idarubicin or a continuous infusion of belinostat with or without idarubicin. Enrollment into the treatment arms is occurring in parallel to define the maximum tolerated dose, or MTD, for each treatment regimen.

#### *Phase I Results with Oral Belinostat*

In October 2007, we reported initial results from our ongoing Phase I open-label, multi-center dose-escalation trial evaluating oral belinostat. The goal of the study is to establish the MTD for oral belinostat administered once or twice daily in one of two regimens (either continuous daily dosing or dosing days one through 14 in a 21-day cycle). Data were available on 60 patients enrolled into the dose-escalation study with 46 patients on the continuous daily regimen and 14 patients dosed days one through 14 in a 21-day cycle. The most frequent adverse events reported were fatigue, anorexia and nausea. More than 2,400 ECGs were collected in this trial, with no grade 3 or 4 QTc changes noted at the time of presentation. Fifteen patients (25%) achieved SD for greater than or equal to 12 weeks, with no RECIST-defined objective responses reported. Dose-escalation performed with 250 mg capsules of oral belinostat resulted in a presumptive continuous dosing MTD of 250 mg twice daily. The MTD for dosing of oral belinostat on days one through 14 in a 21-day cycle has not yet been reached.

#### *Phase II Trial Results for the Treatment of Multiple Myeloma*

In December 2006, results from our Phase II trial evaluating intravenous belinostat for the treatment of multiple myeloma, either alone or in combination with dexamethasone, were presented. The Phase II trial enrolled a total of 25 patients, of which 21 were eligible to be evaluated for single agent clinical activity. Preliminary results indicated that nine patients (43%) receiving belinostat monotherapy achieved SD, lasting from one to ten cycles. Patients with progressive disease following treatment with belinostat monotherapy were eligible to receive belinostat in combination with dexamethasone. Of the eight evaluable patients treated with this combination, an objective response rate of 50% was achieved including two partial response and two minimal responses, and four additional patients achieving SD lasting two to 15 cycles, with two of these patients continuing to receive belinostat and dexamethasone. In this trial, belinostat, both alone and in combination with dexamethasone, was well tolerated.

We have also evaluated the combination of intravenous belinostat with Velcade® (bortezomib) for the treatment of patients with advanced, refractory multiple myeloma. In August 2007, we announced that we had halted enrollment into this Phase II open-label clinical trial. Two out of four patients enrolled in the study developed acute renal insufficiency, or ARI, in the first cycle of treatment with the combination. Three similar events of ARI were previously reported from studies evaluating belinostat monotherapy in patients with multiple myeloma. To date, no ARI has been observed in any other indication for which intravenous or oral belinostat is being evaluated. Further development of belinostat, either alone or combination, for the treatment of multiple myeloma is not currently anticipated.

#### *NCI-Sponsored Belinostat Clinical Development Program*

In August 2004, we signed a clinical trials agreement, or CTA, with the National Cancer Institute, or NCI, that provides us with access to the expertise at the NCI for the design, implementation, and monitoring of clinical trials with belinostat. Under the CTA, the NCI will sponsor a number of clinical trials evaluating the activity of belinostat, either alone or in combination with other anti-cancer therapies, for the treatment of solid and hematologic malignancies. NCI-sponsored clinical trials are occurring in parallel to those sponsored by us, with all data generated

available for use in future product registration. As of March 2008, a total of ten NCI-sponsored trials were being conducted, enrolling patients at sites in the U.S. and abroad. Details of the NCI-sponsored trials are provided below.

<u>Indication</u>	<u>Phase</u>	<u>Regimen</u>	<u>Initiation of Patient Enrollment</u>
Advanced solid tumors or lymphomas	Ib	Combination with Velcade®	March 2006
Acute Myelogenous Leukemia	II	Monotherapy	June 2006
Advanced solid tumors	Ib	Combination with cis-retinoic acid	June 2006
Mesothelioma	II	Monotherapy	June 2006
Hepatocellular carcinoma	I/II	Monotherapy	July 2006
Advanced hematologic malignancies	I	Combination with azacitidine	August 2006
B-cell lymphomas	II	Monotherapy	August 2006
Ovarian Cancer	II	Monotherapy	November 2006
Myelodysplastic syndrome	II	Monotherapy	November 2006
Thymoma / thymic carcinoma	II	Monotherapy	December 2007

During the 2007 AACR-NCI-EORTC International Conference in October 2007, results from two NCI-sponsored clinical trials evaluating intravenous belinostat as either monotherapy for the treatment of ovarian cancer or in combination with Velcade®, or bortezomib, for advanced solid tumors or lymphomas were presented.

Data from the ongoing Phase II open-label trial evaluating intravenous belinostat monotherapy on patients with either refractory or relapsed platinum resistant epithelial ovarian cancer, or EOC, or patients with micropapillary/borderline ovarian tumors, or LMP, were reported. During the presentation it was reported that belinostat was safe and generally well-tolerated in these two ovarian cancer populations. A total of patients with LMP tumors received a median of four treatment cycles (range one to 13), with one LMP patient achieving a partial response, or PR, one patient had a CA-125 response, nine had SD, and two were not evaluable. Six patients remain on study. Objective responses to belinostat monotherapy were not observed in a heavily pre-treated well-defined platinum-resistant population of patients with EOC.

Data on 17 patients, of which 14 were evaluable, were reported from an ongoing Phase I open-label, dose-escalation study evaluating intravenous belinostat in combination with bortezomib for the treatment of advanced solid tumors or lymphomas were also presented during the 2007 AACR-NCI-EORTC International Conference. Belinostat in combination with bortezomib was well tolerated at doses up to 600 mg/m<sup>2</sup> belinostat and 1.3 mg/m<sup>2</sup> bortezomib, with ongoing enrollment of patients into this dosing cohort. Activity of the combination reported included one patient with Ewing's Sarcoma that has maintained SD for 4 cycles, and two patients, one with peritoneal cancer and one with appendiceal carcinoma, that have maintained SD for 3 cycles. Adverse events were generally grades 1-2 and reversible. No grade 4 non-hematologic toxicities were reported.

#### *CR011-vcMMAE for the Treatment of Cancer*

CR011 is a fully-human monoclonal antibody resulting from our collaboration with Amgen Fremont that utilizes antibody-drug conjugate, or ADC technology licensed from Seattle Genetics to attach monomethylauristatin E, or vcMMAE, to yield CR011-vcMMAE. CR011 targets glycoprotein NMB, or GPNMB, a protein located specifically on the surface of cells including melanoma. After CR011-vcMMAE binds to the target protein, the ADC is transported inside the cancer cell where MMAE is cleaved from the antibody and activated in the cell.

In October 2004, we announced the advancement to preclinical development of CR011-vcMMAE, which we are investigating as a potential treatment for metastatic melanoma. Preclinical animal data on CR011-vcMMAE was presented in April 2005 at the 96<sup>th</sup> Annual Meeting of American Association for Cancer Research, or AACR. These results demonstrated that treatment of xenograft models of melanoma with CR011-vcMMAE caused significant improvements in survival, including complete and durable tumor regression, without any notable toxicity or weight loss.

#### *Clinical Development Program*

In June 2006, we announced the clearance by the FDA of the investigational new drug application, or IND, for CR011-vcMMAE and the initiation of dosing of patients in a Phase I/II clinical trial. We reported in October 2007 initial results from this ongoing open-label, multi-center, dose-escalation study that is evaluating the safety, tolerability and pharmacokinetics of CR011-vcMMAE for patients with unresectable Stage III or Stage IV melanoma who have failed no more than one prior line of chemotherapy. The first part of the trial has been evaluating cohorts of patients receiving increasing doses of CR011-vcMMAE to determine the MTD. In October 2007, we provided an update on clinical trial results at the 2007 AACR-NCI-EORTC International Conference on Molecular Targets and Cancer Therapeutics. Data on 25 patients treated with doses of up to 1.88 mg/kg CR011-vcMMAE administered intravenously once every three weeks were presented. CR011-vcMMAE has been generally well-tolerated with no dose limiting toxicities reported. Clinical activity reported included stable disease in six patients lasting four cycles or longer and four patients with reductions in tumor size of up to 20%. The dose escalation assessment of CR011-vcMMAE is ongoing with patients treated at doses up to 2.63 mg/kg.

After determination of the MTD, up to approximately 32 additional patients with advanced melanoma are expected to be enrolled and treated at the MTD to further define safety and activity of CR011-vcMMAE in the efficacy portion of the trial.

#### *Velafermin for Cancer Supportive Care*

Velafermin, also referred to as recombinant human fibroblast growth factor-20, or FGF-20, or CG53135, is a protein we were investigating for the prevention of oral mucositis in cancer patients receiving chemotherapy, with or without radiotherapy, for the treatment of their underlying disease. We announced in October 2007 that our Phase II dose-confirmatory clinical trial on velafermin, designated CLN-12, did not meet its primary endpoint. Based on these trial results, we have discontinued the development of velafermin. Patients from this study are being followed for approximately one year post treatment for protocol-specified safety monitoring and therefore the study will not be clinically complete until approximately September 2008. No new obligations will be initiated with this program.

#### *Earlier Stage Assets*

In addition to the clinical drug candidates outlined above, we also have a portfolio of preclinical protein, antibody, ADC and small molecule drug candidates that have been or are ready to be evaluated in animal studies. The majority these drug candidates are in the areas of oncology and inflammatory diseases.

### **Research and Development**

#### *Research and Development Expenses*

Research and development expenses for the years ended 2007, 2006 and 2005 were \$36.8 million, \$44.0 million and \$57.5 million, respectively. Our research and development expenses consist of investments in the manufacturing, preclinical evaluation and clinical development of our drug candidates including velafermin, belinostat and CR011-vcMMAE. For additional details regarding our research and development expenses, see "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations," which is included elsewhere in this Annual Report on Form 10-K.

## Strategic Collaborations

We have established a pipeline of potential therapeutics by collaborating with, and leveraging the capabilities of, industry leaders to more efficiently advance our programs, reduce risk and conserve resources. We have developed five classes of drug candidates: protein therapeutics; fully-human monoclonal antibody therapeutics, which were developed in collaboration with Amgen Fremont; small molecule therapeutics for oncology and inflammatory diseases, which are developed in collaboration with TopoTarget; ADCs, which are developed using antibodies generated by Amgen Fremont and ADC technology from Seattle Genetics; and small molecule therapeutics for diabetes and metabolic disorders, which were developed in collaboration with Bayer.

### *Amgen Fremont (formerly Abgenix)*

In December 1999, we entered into a strategic collaboration with Abgenix to develop fully-human monoclonal antibody therapeutics. We amended and restructured this alliance in November 2000 and April 2004. The initial phase of the agreement, involving the identification of targets and the initiation of antibody generation, was completed in June 2005. In April 2006, Amgen Inc. acquired Abgenix, and assumed all obligations of the agreement. Under this agreement, we have advanced CR011-vcMMAE into clinical development. Under our agreement we are obligated to pay milestones to Amgen for the advancement of CR011-vcMMAE through clinical trials and regulatory approval. In addition, we are obligated to pay royalties to Amgen based upon Net Sales of CR011-vcMMAE once commercialized.

### *TopoTarget*

In June 2004, we signed a license and collaboration agreement with TopoTarget to develop belinostat, a novel HDAC inhibitor for the treatment of solid and hematologic malignancies, and identify additional HDAC inhibitors from TopoTarget's extensive library of compounds.

Under the terms of the agreement, we acquired the exclusive right to commercialize belinostat in all markets other than Europe, while TopoTarget has retained commercialization rights in Europe. We are obligated to fund the global development of belinostat. In June 2004, we paid a \$5.0 million perpetual license fee to TopoTarget and made a \$5.0 million equity investment that was recorded as a convertible loan receivable. In June 2005, we converted this loan into 1,429,687 shares of TopoTarget common stock following TopoTarget's initial public offering on the Copenhagen Stock Exchange. During September 2007, we sold our investment in TopoTarget for proceeds of \$6.3 million and had a realized gain of \$1.0 million. Under the terms of the agreement, we paid TopoTarget \$7.2 million in development milestones from June 2004 through December 2005. Additionally, we paid TopoTarget \$6.5 million for research support from June 2004 through June 2007. The research program under this agreement expired in June 2007.

Under our agreement with TopoTarget we are obligated to pay milestones to TopoTarget for the advancement of belinostat through clinical trials and regulatory approval. In addition, TopoTarget is entitled to receive royalties from us based on sales of belinostat outside of Europe and we are entitled to receive reciprocal royalties from TopoTarget based on sales of belinostat in Europe once commercialized. TopoTarget has the option to fund a portion of the global development of belinostat in exchange for higher royalties. We are currently evaluating belinostat in a number of clinical trials as a potential treatment of cancer both as a single agent and in combination with other anti-cancer therapies. In addition, we have an option to select additional HDAC compounds from TopoTarget for clinical development in oncology and other indications for a fee payable to TopoTarget.

Under the terms of the agreement between TopoTarget and us, we received 50% of the initial payment received by TopoTarget under a licensing agreement between TopoTarget and an unrelated third party for a preclinical HDAC compound. In January 2008, TopoTarget was informed by the third party that it will be ceasing development of this preclinical compound in 2008.

### *Seattle Genetics*

In June 2004, we announced the licensing of Seattle Genetics' proprietary ADC technology for use with up to two of our fully-human monoclonal antibodies. We paid an upfront fee of \$2.0 million for access to the ADC technology for use with CR011-vcMMAE, our first fully-human monoclonal antibody program to utilize this technology which we announced in October 2004. We announced in July 2006 that an IND was filed with the FDA for CR011-vcMMAE and patient enrollment was initiated in a Phase I clinical trial.

We are responsible for research, product development, manufacturing and commercialization under this collaboration. We also pay maintenance and material supply fees as well as research support payments for ongoing assistance provided by Seattle Genetics in developing ADC products. Under the agreement, we are obligated to pay milestones to Seattle Genetics for the advancement of CR011-vcMMAE through clinical trials and regulatory approval. In addition, we are obligated to pay royalties to Seattle Genetics based upon Net Sales of CR011-vcMMAE once commercialized. We may terminate any license under the agreement by providing not less than 90 days prior written notice to Seattle Genetics.

### **Competition**

We are subject to significant competition in the development and commercialization of new drugs from organizations that are pursuing strategies, approaches, technologies and products that are similar to our own. Many of the organizations competing with us have greater capital resources, research and development staffs, facilities, and marketing capabilities. We face competition from a number of biotechnology and pharmaceutical companies with products in preclinical development, clinical trials, or approved for conditions identical or similar to the ones we are pursuing.

We are aware of specific companies that are developing HDAC inhibitors for use in the treatment of cancer that may be competitive with ours. With respect to our HDAC inhibitor, belinostat, Merck & Co., Inc. recently received FDA approval to market Zolinza, or vorinostat, the first HDAC inhibitor approved for use in the U.S., for the treatment of cutaneous T-cell lymphoma. Bayer Schering Pharma AG, Gloucester Pharmaceuticals, Inc., Methylgene, Inc., and Novartis Pharma AG are also currently evaluating HDAC inhibitors in clinical trials for the treatment of cancers, and in combinations with other chemotherapies, that are similar to approaches and indications we are pursuing. In addition, many other pharmaceutical and biotechnology companies are engaged in research and development for the treatment of cancer from which we may face intense competition. We expect belinostat to compete on the basis of efficacy, routes of administration, and potentially safety and economic value compared to drugs used in current practice or currently being developed.

### **Intellectual Property**

Our business and competitive position depends in part on our ability to protect our gene sequences, the proteins they encode, fully-human monoclonal antibodies raised against them, small molecules, other products, information systems and proprietary databases, software and other methods and technology. We have filed, and continue to file, patent applications that seek to protect commercially significant aspects of our product candidates. As of the date of this report we had been issued approximately 115 patents worldwide including 88 issued US patents.

CuraGen® and our other trademarks mentioned in this report are the property of CuraGen Corporation. All other trademarks or trade names referred to herein are the property of their respective owners.

### **Government Regulation and Product Approval**

Government authorities in the United States, at the federal, state and local level, and other countries extensively regulate, among other things, the research, development, testing, manufacturing, labeling, packaging, promotion, storage, advertising, distribution, marketing and export and import of products such as those we are developing.

### *United States Government Regulation*

In the United States, the information that must be submitted to the FDA in order to obtain approval to market a new drug varies depending on whether the drug is a new product whose safety and effectiveness has not previously been demonstrated in humans or a drug whose active ingredient(s) and certain other properties are the same as those of a previously approved drug. A new drug will typically follow the new drug application, or NDA, route and a new biologic will typically follow the biologic license application, or BLA, route.

### *NDA and BLA Approval Processes*

In the United States, the FDA regulates drugs and biologics under the Federal Food, Drug and Cosmetic Act, or FFDCA, and in the case of biologics, also under the Public Health Service Act, and the FDA's implementing regulations.

The process required by the FDA before a drug or biologic may be marketed in the United States generally involves the following:

- completion of preclinical laboratory tests, animal studies and formulation studies according to Good Laboratory Practices;
- submission of an IND which must become effective before human clinical trials may begin;
- performance of adequate and well-controlled human clinical trials according to Good Clinical Practices, or GCPs, to establish the safety and efficacy of the proposed drug for its intended use;
- submission to the FDA of an NDA or BLA;
- satisfactory completion of an FDA inspection of the manufacturing facility or facilities at which the product is produced to assess compliance with current good manufacturing practice, or cGMP, to assure that the facilities, methods and controls are adequate to preserve the drug's identity, strength, quality and purity or to meet standards designed to ensure the biologic's continued safety, purity and potency; and
- FDA review and approval of the NDA or BLA.

The results of product development, preclinical studies and clinical studies, along with descriptions of the manufacturing process, analytical tests conducted on the chemistry of the drug, results of chemical studies and other relevant information are submitted to the FDA as part of an NDA or BLA requesting approval to market the product. The FDA reviews all NDAs and BLAs submitted before it accepts them for filing. Once the submission is accepted for filing, the FDA begins an in-depth review. The FDA may refuse to approve an NDA or BLA if the applicable regulatory criteria are not satisfied or may require additional clinical or other data. The FDA reviews an NDA to determine, among other things, whether a product is safe and effective for its intended use and whether its manufacturing is cGMP-compliant to assure and preserve the product's identity, strength, quality and purity. The FDA reviews a BLA to determine, among other things, whether the product is safe, pure and potent and the facility in which it is manufactured, processed, packed or held meets standards designed to assure the product's continued safety, purity and potency. Before approving an NDA or BLA, the FDA will inspect the facility or facilities where the product is manufactured.

### *Expedited review and approval*

The FDA has various programs, including fast track, priority review, and accelerated approval, that are intended to expedite or simplify the process for reviewing drugs, and/or provide for approval on the basis of surrogate endpoints. Generally, drugs that may be eligible for these programs are those for serious or life-threatening conditions, those with the potential to address unmet medical needs, and those that offer meaningful benefits over existing treatments, however, these programs do not affect the standards for approval. Fast track

designation applies to the combination of the product and the specific indication for which it is being studied. As a condition of approval, the FDA may require that a sponsor of a drug receiving accelerated approval perform post-marketing clinical trials.

### *Orphan drug*

Under the Orphan Drug Act, the FDA may grant orphan drug designation to drugs intended to treat a rare disease or condition, which is generally a disease or condition that affects fewer than 200,000 individuals in the United States, or more than 200,000 individuals in the United States and for which there is no reasonable expectation that the cost of developing and making available in the United States a drug for this type of disease or condition will be recovered from sales in the United States for that drug. If a product that has orphan drug designation subsequently receives the first FDA approval for the disease for which it has such designation, the product is entitled to orphan product exclusivity, which means that the FDA may not approve any other applications to market the same drug for the same indication, except in very limited circumstances, for seven years.

Once an approval is granted, the FDA may withdraw the approval if compliance with regulatory standards is not maintained or if problems occur after the product reaches the market. After approval, some types of changes to the approved product, such as adding new indications, manufacturing changes and additional labeling claims, are subject to further FDA review and approval. In addition, the FDA may require testing and surveillance programs to monitor the effect of approved products that have been commercialized, and the FDA has the power to prevent or limit further marketing of a product based on the results of these post-marketing programs.

### *The Clinical Trial Processes*

We currently have two products, belinostat and CR011-vcMMAE, in various stages of clinical trial development. All clinical trials must be conducted under the supervision of one or more qualified investigators in accordance with GCPs regulations. Human clinical trials are typically conducted in three sequential phases that may overlap or be combined and are as follows:

- **Phase I:** The drug candidate is initially introduced into healthy human volunteer subjects or patients with the disease. These studies are designed to determine the safety and side effects associated with increasing dosages, absorption, metabolism, distribution and excretion, pharmacologic and mechanism of action of the drug candidate in humans, and, if possible, to gain early evidence of effectiveness. Sufficient information about a drug candidate's pharmacokinetics and pharmacological effects should be obtained to permit the design of well-controlled, scientifically valid, Phase II studies;
- **Phase II:** Involves clinical studies conducted to evaluate the effectiveness of the drug candidate for a particular indication in patients with the disease or condition under study and to determine the common short-term side effects and risks associated with the drug candidate. These studies are typically closely monitored and conducted in a relatively small number of patients, usually involving no more than several hundred patients; and
- **Phase III:** Clinical trials are performed after preliminary evidence suggesting effectiveness of the drug candidate has been obtained, and are intended to generate additional information about the drug candidate's effectiveness and safety that is required to evaluate the overall benefit-risk relationship of the drug candidate and to provide an adequate basis for physician labeling. The studies may include anywhere from several hundred to several thousand subjects.

Concurrent with clinical trials, companies usually complete additional animal studies. Companies must also develop additional information about the chemistry and physical characteristics of the drug and finalize a process for manufacturing the product in accordance with cGMP requirements. The manufacturing process must be capable of consistently producing quality batches of the product candidate and the manufacturer must develop methods for testing the quality, purity and potency of the final drugs.

### *Foreign Regulation*

In addition to regulations in the United States, we will be subject to a variety of foreign regulations governing clinical trials and commercial sales and distribution of our products. Whether or not we obtain FDA approval for a product, we must obtain approval of a product by the comparable regulatory authorities of foreign countries before we can commence clinical trials or marketing of the product in those countries. The approval process varies from country to country and the time may be longer or shorter than that required for FDA approval.

Under European Union regulatory systems, we may submit marketing authorization applications either under a centralized or decentralized procedure. The centralized procedure, which is compulsory for medicines produced by biotechnology and optional for those which are highly innovative, provides for the grant of a single marketing authorization that is valid for all European Union member states. The decentralized procedure provides for mutual recognition of national approval decisions. Under the decentralized procedure, the holder of a national marketing authorization may submit an application to the remaining member states. Within 90 days of receiving the applications and assessments report each member state must decide whether to recognize approval. If a member state does not recognize the marketing authorization, the disputed points are eventually referred to the European Commission, whose decision is binding on all member states. As in the United States, we may apply for designation of our products as orphan drug for the treatment of a specific indication in the European Union before the application for marketing authorization is made. Orphan drugs in Europe enjoy economic and marketing benefits, including a 10-year market exclusivity period for the approved indication, but not for the same drug, unless another applicant can show that its product is safer, more effective or otherwise clinically superior to the orphan-designated product.

### **Corporate Restructuring**

During June and September 2007, we underwent corporate restructurings to reduce operating costs and to focus resources on the advancement of our therapeutic pipeline through clinical development, resulting in full year 2007 restructuring charges of \$11.3 million. This amount includes an asset impairment charge of \$6.3 million associated with the closure of our pilot manufacturing plant on July 27, 2007. In addition, we also announced a reduction in workforce of approximately 55 employees, primarily composed of preclinical and manufacturing researchers, and additional support staff from within the organization. The restructuring actions have been substantially completed at December 31, 2007, although payments will continue into 2008.

### **Completion of 454 Sale**

In May 2007, we completed the sale of our interest in 454 Life Sciences Corporation, a Delaware corporation and our majority-owned subsidiary, or 454, to Roche Diagnostics Operations, Inc., or RDO. The sale was accomplished pursuant to an Agreement and Plan of Merger dated March 28, 2007 by and among Roche Holdings, Inc., 454 and 13 Acquisitions, or the Merger Agreement. Roche Holdings, Inc. subsequently assigned its rights and obligations under the Merger Agreement to RDO, an indirect wholly-owned subsidiary of Roche Holdings, Inc., prior to the closing of the Merger. Roche Holdings, Inc. and RDO are affiliates of F. Hoffman-La Roche Ltd.

The purchase price paid for 454 by RDO was \$152.0 million in cash, of which RDO paid \$140.0 million in cash and \$12.0 million of which was received from the exercise of 454 stock options following the signing of the Merger Agreement. We received \$68 million in cash proceeds at closing, and we retain an interest of \$14 million in escrowed proceeds, which become distributable to us on August 25, 2008.

In July 2007, an adjustment to the purchase price was made based on the closing balance sheet of 454. This purchase price adjustment resulted in us receiving an additional \$0.6 million, which is included in the calculation of the gain on sale of subsidiary on the accompanying consolidated statement of operations for the year ended December 31, 2007.



Our portion of the purchase price for 454 after transaction costs, including the net working capital and net debt adjustment and the amount expected from the escrow, was \$82.0 million.

**Employees**

As of December 31, 2007, we had an aggregate of 33 full and part-time employees. Our employees include scientists, physicians, accountants and lawyers. We believe that we maintain good relationships with our employees. We believe that our future success will depend in large part on our ability to attract and retain experienced and skilled employees.

## **Item 1A. Risk Factors**

*Statements contained or incorporated by reference in this Annual Report on Form 10-K that are not based on historical fact are "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. These forward-looking statements regarding future events and our future results are based on current expectations, estimates, forecasts, and projections and the beliefs and assumptions of our management including, without limitation, our expectations regarding results of operations, selling, general and administrative expenses, research and development expenses, the sufficiency of our cash for future operations, and the success of our preclinical, clinical and development programs. Forward-looking statements may be identified by the use of forward-looking terminology such as "may," "could," "will," "expect," "estimate," "anticipate," "continue," or similar terms, variations of such terms or the negative of those terms.*

*We cannot assure investors that our assumptions and expectations will prove to have been correct. Important factors could cause our actual results to differ materially from those indicated or implied by forward-looking statements. Such factors that could cause or contribute to such differences include those factors discussed below. We undertake no intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. If any of the following risks actually occur, our business, financial condition, results of operations or liquidity would likely suffer.*

### **Risks Related to Our Business**

**We have a history of operating losses and expect to incur operating losses in the future. We do not expect to have a meaningful source of recurring revenue in the near future.**

We have incurred losses since inception, principally as a result of research and development and general and administrative expenses in support of our operations. We experienced net income of \$25.4 million in 2007 principally resulting from the sale of 454, net losses of \$59.8 million and \$73.2 million in 2006 and 2005, respectively, and as of December 31, 2007 had an accumulated deficit of \$487.6 million. We anticipate incurring additional losses as we focus our resources on advancing our most promising drug candidates.

**We can not ensure that our existing cash and investment balances will be sufficient to meet our requirements for the future.**

We believe that our existing cash and investment balances and other sources of liquidity, will be sufficient to meet our requirements into 2011. We consider our operating expenditures to be crucial to our future success, and by continuing to make strategic investments in our clinical drug pipeline, we believe that we are building substantial value for our stockholders. The adequacy of our available funds to meet our future operating and capital requirements will depend on many factors. These factors include: the number, breadth, progress and results of our research, product development and clinical programs; the costs and timing of obtaining regulatory approvals for any of our products; in-licensing and out-licensing of pharmaceutical products; and costs incurred in enforcing and defending our patent claims and other intellectual property rights.

While we will continue to explore alternative sources for financing our business activities, including the possibility of public securities offerings and/or private strategic-driven common stock offerings, we cannot be certain that in the future these sources of liquidity will be available when needed or that our actual cash requirements will not be greater than anticipated. In appropriate strategic situations, we may seek financial assistance from other sources, including contributions by others to joint ventures and other collaborative or licensing arrangements for the development and testing of products under development. However, should we be unable to obtain future financing either through the methods described above or through other means, we may be unable to meet the critical objective of our long-term business plan, which is to successfully develop and market pharmaceutical products, and may be unable to continue operations. This result could cause our stockholders to lose all or a substantial portion of their investment.

**Our drug candidates are still in development and remain subject to clinical testing and regulatory approval. If we are unable to successfully develop and test our drug candidates, we will not be successful.**

To date, we have not marketed, distributed or sold any drug candidates. The success of our business depends primarily upon our ability to develop and commercialize our drug candidates successfully. Our most advanced drug candidates are belinostat, which is in multiple Phase I and Phase II clinical trials, and CR011-vcMMAE, which is currently in a Phase I/II clinical trial. Further development of our other preclinical candidates will be limited in the foreseeable future due to our decision to focus our resources on the development of our clinical development stage oncology therapeutics. Our drug candidates must satisfy rigorous standards of safety and efficacy before they can be approved for sale. To satisfy these standards, we must engage in expensive and lengthy testing and obtain regulatory approval of our drug candidates. Despite our efforts, our drug candidates may not:

- offer therapeutic or other improvement over existing comparable drugs;
- be proven safe and effective in clinical trials;
- meet applicable regulatory standards;
- be capable of being produced in commercial quantities at acceptable costs; or
- be successfully commercialized.

Positive results in preclinical studies of a drug candidate may not be predictive of similar results in humans during clinical trials, and promising results from early clinical trials of a drug candidate may not be replicated in later clinical trials. For example, in the fourth quarter of 2007, we decided to discontinue the development of velafermin after reviewing and evaluating the results of Phase II clinical trials. A number of companies in the pharmaceutical and biotechnology industries have suffered significant setbacks in late stage clinical trials even after achieving promising results in early stage development. Accordingly, the results from the completed preclinical studies and clinical trials and ongoing clinical trials for belinostat, CR011-vcMMAE and our other drug candidates may not be predictive of the safety, efficacy or dosing results we may obtain in later stage trials. We do not expect any of our drug candidates to be commercially available for at least several years.

**We may not be able to execute our business strategy if we are unable to enter into alliances with other companies that can provide capabilities and funds for the development and commercialization of our drug candidates. If we are unsuccessful in forming or maintaining these alliances on favorable terms, our business may not succeed.**

We have entered into collaboration arrangements with several companies for the research, development and commercialization of our drug candidates, and we may enter into additional collaborative arrangements in the future. For example, we may enter into alliances with major biotechnology or pharmaceutical companies to jointly develop specific drug candidates and to jointly commercialize them if they are approved. We may not be successful in entering into any such alliances on favorable terms. Even if we do succeed in securing such alliances, we may not be able to maintain them if, for example, development or approval of a drug candidate is delayed or sales of an approved drug are disappointing. Furthermore, any delay in entering into collaboration agreements could delay the development and commercialization of our drug candidates and reduce their competitiveness even if they reach the market. Any such delay related to our collaborations could adversely affect our business.

We may also depend on our alliances with other companies to provide substantial additional funding for development and potential commercialization of our drug candidates. We may not be able to obtain funding on favorable terms from these alliances, and if we are not successful in doing so, we may not have sufficient funds to develop a particular drug candidate internally, or to bring drug candidates to market. Failure to bring our drug candidates to market will prevent us from generating sales revenues, and this may substantially harm our business.

**We rely significantly on our collaborative partners to gain access to specified technologies and our business could be harmed if we are unable to maintain strategic alliances.**

As part of our business strategy, we have strategic research and development alliances with companies to gain access to specific technologies. These alliances with other pharmaceutical and biotechnology companies may provide us with access to unique technologies, access to capital, near-term revenues, milestone and/or royalty payments, and potential profit sharing arrangements. In return, we provide access to unique technologies, expertise in genomics, and information on the molecular basis of disease, drug targets, and drug candidates. We currently have strategic alliances with Amgen Fremont, TopoTarget, and Seattle Genetics, in addition to numerous smaller agreements to facilitate these efforts. In these strategic alliances, either party can terminate the agreement at any time the alliance permits them to or if either party materially breaches the contract. We may not be able to maintain or expand existing alliances or establish any additional alliances. If any of our existing collaborators were to breach or terminate their agreements with us or otherwise fail to conduct activities successfully and in a timely manner, the preclinical or clinical development or commercialization of product candidates or research programs may be delayed or terminated, which may materially and adversely affect our business, financial condition, and results of operations.

**We rely on third parties to conduct our clinical trials and provide other services, and those third parties may not perform satisfactorily, including failing to meet established deadlines for the completion of such services.**

We do not have the ability to independently conduct some preclinical studies and the clinical trials for our drug candidates, and we rely on third parties such as contract laboratories, contract research organizations, medical institutions and clinical investigators to design and conduct these studies and our clinical trials. Our reliance on these third parties reduces our control over these activities. Accordingly, these third-party contractors may not complete activities on schedule, or may not conduct the studies of our clinical trials in accordance with regulatory requirements of our trial design. To date, we believe our contract research organizations and other similar entities with which we are working have performed well. However, if these third parties do not successfully carry out their contractual duties or meet expected deadlines, we may be required to replace them. Although we believe that there are a number of other third-party contractors we could engage to continue these activities, it may result in delays. Accordingly, our efforts to obtain regulatory approvals for and commercialize our drug candidates may be delayed.

In addition, our ability to bring our future products to market depends on the quality and integrity of the data we present to regulatory authorities in order to obtain marketing authorizations. We cannot guarantee the authenticity or accuracy of data compiled by third parties, nor can we be certain that such data has not been fraudulently generated. The failure of these third parties to carry out their obligations would materially adversely affect our ability to develop and market new products and implement our strategies.

**We currently depend on third-party manufacturers to produce our clinical drug supplies and intend to rely upon third-party manufacturers to produce commercial supplies of any approved drug candidates. If in the future we manufacture any of our drug candidates, we will be required to incur significant costs and devote significant efforts to establish and maintain these capabilities.**

We have relied upon third parties to produce material for clinical testing purposes and intend to continue to do so in the future. Although we believe that we will not have any material supply issues, we cannot be certain that we will be able to obtain long-term supplies of those materials on acceptable terms, if at all. We also expect to rely upon third parties to produce materials required for the commercial production of our drug candidates if we succeed in obtaining necessary regulatory approvals. If we are unable to arrange for third-party manufacturing, or to do so on commercially reasonable terms, we may not be able to complete development of our drug candidates or market them. Reliance on third-party manufacturers entails risks to which we would not be subject if we manufactured drug candidates ourselves, including reliance on the third party for regulatory compliance and quality assurance, the possibility of breach of a manufacturing agreement by the third party

because of factors beyond our control and the possibility of termination or nonrenewal of the agreement by the third party, based on its own business priorities, at a time that is costly or damaging to us. In addition, the FDA and other regulatory authorities require that our drug candidates be manufactured according to current Good Manufacturing Practices, or cGMP, regulations. Any failure by us or our third-party manufacturers to comply with cGMP and/or our failure to scale up our manufacturing processes could lead to a delay in, or failure to obtain, regulatory approval of any of our drug candidates. In addition, such failure could be the basis for action by the FDA to withdraw approvals for drug candidates previously granted to us and for other regulatory action.

We currently rely on a single manufacturer for the clinical supplies of our antibody, and ADC drug candidates and do not currently have relationships for redundant supply or a second source for any of these drug candidates. To date, our third-party manufacturers have met our manufacturing requirements, but we cannot assure that they will continue to do so. Any performance failure on the part of our existing or future manufacturers could delay clinical development or regulatory approval of our drug candidates or commercialization of any approved products. If for some reason our current contract manufacturers cannot perform as agreed, we may be required to replace them. Although we believe there are a number of potential replacements as our manufacturing processes are not manufacturer specific, we may incur added costs and delays in identifying and qualifying any such replacements. Furthermore, although we generally do not begin a clinical trial unless we believe we have a sufficient supply of a drug candidate to complete the trial, any significant delay in the supply of a drug candidate for an ongoing trial due to the need to replace a third-party manufacturer could delay completion of the trial.

We may in the future elect to manufacture certain of our drug candidates in our own manufacturing facilities. If we do so, we will require substantial additional funds and need to recruit qualified personnel in order to build or lease and operate any manufacturing facilities.

**Because we have limited experience in developing, commercializing and marketing products, we may be unsuccessful in our efforts to do so.**

Our products in development will require significant research and development and preclinical and clinical testing prior to our submitting any regulatory application for their commercial use. These activities, even if undertaken without the collaboration of others, will require us to expend significant funds and will be subject to the risks of failure inherent in the development of pharmaceutical products. We have limited experience conducting clinical trials. Even if we complete such studies, our ability to commercialize products will depend on our ability to:

- obtain and maintain necessary intellectual property rights to our products;
- enter into arrangements with third parties to manufacture our products on our behalf; and
- deploy sales and marketing resources effectively or enter into arrangements with third parties to provide these services.

As a result of these possibilities, we may not be able to develop any commercially viable products. In addition, should we choose to develop pharmaceutical products internally, we will have to make significant investments in pharmaceutical product development, marketing, sales, and regulatory compliance resources and we will have to establish or contract for the manufacture of products under the FDA cGMPs. Any potential products developed by our licensees will be subject to the same risks.

We do not currently have any marketed products. If we develop products that can be marketed, we intend to market the products either independently or together with collaborators or strategic partners. If we decide to market any products independently, we will incur significant additional expenditures and commit significant additional management resources to establish a sales force. For any products that we market together with partners, we will rely, in whole or in part, on the marketing capabilities of those parties. We may also contract with other third parties to market certain of our products. Ultimately, we and our partners may not be successful in marketing our products.

**If clinical trials for our drug candidates are prolonged or delayed, we may be unable to commercialize our drug candidates on a timely basis, which would require us to incur additional costs and delay our receipt of any product revenue.**

We cannot predict whether we will encounter problems with any of our completed, ongoing or planned clinical trials that will cause us or regulatory authorities to delay or suspend clinical trials, or delay the analysis of data from our completed or ongoing clinical trials. Any of the following could delay the clinical development of our drug candidates:

- ongoing discussions with the FDA or comparable foreign authorities regarding the scope or design of our clinical trials;
- delays in receiving or the inability to obtain required approvals from institutional review boards or other reviewing entities at clinical sites selected for participation in our clinical trials;
- delays in enrolling volunteers and patients into clinical trials;
- a lower than anticipated retention rate of volunteers and patients in clinical trials;
- the need to repeat clinical trials as a result of inconclusive or negative results or unforeseen complications in testing;
- inadequate supply or deficient quality of drug candidate materials or other materials necessary for the conduct of our clinical trials;
- unfavorable FDA inspection and review of a clinical trial site or records of any clinical or preclinical investigation;
- serious and unexpected drug-related side effects experienced by participants in our clinical trials; or
- the placement by the FDA of a clinical hold on a trial.

Our ability to enroll patients in our clinical trials in sufficient numbers and on a timely basis will be subject to a number of factors, including the size of the patient population, the nature of the protocol, the proximity of patients to clinical sites, the availability of effective treatments for the relevant disease and the eligibility criteria for the clinical trial. Delays in patient enrollment may result in increased costs and longer development times. In addition, subjects may withdraw from our clinical trials, and thereby impair the validity or statistical significance of the trials.

We, the FDA or other applicable regulatory authorities may suspend clinical trials of a drug candidate at any time if we or they believe the subjects or patients participating in such clinical trials are being exposed to unacceptable health risks or for other reasons.

We cannot predict whether any of our drug candidates will encounter problems during clinical trials which will cause us or regulatory authorities to delay or suspend these trials, or which will delay the analysis of data from these trials. In addition, it is impossible to predict whether legislative changes will be enacted, or whether FDA regulations, guidance or interpretations will be changed, or what the impact of such changes, if any, may be. If we experience any such problems, we may not have the financial resources to continue development of the drug candidate that is affected or the development of any of our other drug candidates.

**If a collaborative partner terminates or fails to perform its obligations under agreements with us, the development and commercialization of our drug candidates could be delayed or terminated.**

If any current or future collaborative partner does not devote sufficient time and resources to collaboration arrangements with us, we may not realize the potential commercial benefits of the arrangement, and our results of operations may be adversely affected. In addition, if any existing or future collaboration partner were to breach or terminate its arrangements with us, the development and commercialization of the affected drug candidate could be delayed, curtailed or terminated because we may not have sufficient financial resources or capabilities to continue development and commercialization of the drug candidate on our own.

Much of the potential revenue from our existing and future collaborations will consist of contingent payments, such as payments for achieving development milestones and royalties payable on sales of drugs developed using our technologies. The milestone and royalty revenues that we may receive under these collaborations will depend upon our collaborator's ability to successfully develop, introduce, market and sell new products. In addition, our collaborators may decide to enter into arrangements with third parties to commercialize products developed under our existing or future collaborations using our technologies, which could reduce the milestone and royalty revenue that we may receive, if any. In many cases we will not be involved in these processes and accordingly will depend entirely on our collaborators. Our collaboration partners may fail to develop or effectively commercialize products using our products or technologies because they:

- decide not to devote the necessary resources due to internal constraints, such as limited personnel with the requisite scientific expertise, limited cash resources or specialized equipment limitations, or the belief that other drug development programs may have a higher likelihood of obtaining regulatory approval or may potentially generate a greater return on investment;
- do not have sufficient resources necessary to carry the drug candidate through clinical development, regulatory approval and commercialization;
- decide to pursue a competitive drug candidate developed outside of the collaboration; or
- cannot obtain the necessary regulatory approvals.

If our collaboration partners fail to develop or effectively commercialize drug candidates or drugs for any of these reasons, we may not be able to replace the collaboration partner with another partner to develop and commercialize a drug candidate or drugs under the terms of the collaboration. We may also be unable to obtain a license from such collaboration partner on terms acceptable to us, or at all.

**Because neither we nor any of our collaborative partners have received marketing approval for any product resulting from our research and development efforts, and may never be able to obtain any such approval, we may not be able to generate any product revenue.**

All of the products being developed by our collaborative partners will require additional research and development, extensive preclinical studies and clinical trials, and regulatory approval prior to any commercial sales. In some cases, the length of time that it takes for our collaborative partners to achieve various regulatory approval milestones may affect the payments that we are eligible to receive under our collaboration agreements. We and our collaborative partners may need to address a number of technical challenges successfully in order to complete development of our drug candidates. Moreover, these drug candidates may not be effective in treating any disease or may prove to have undesirable or unintended side effects, toxicities, or other characteristics that may preclude our obtaining regulatory approval or prevent or limit commercial use.

**If we are unable to obtain U.S. and/or foreign regulatory approval, we will be unable to commercialize our drug candidates.**

Our drug candidates are subject to extensive governmental regulations relating to development, clinical trials, manufacturing and commercialization. Rigorous preclinical testing and clinical trials and an extensive regulatory approval process are required in the United States and in many foreign jurisdictions prior to the commercial sale of our drug candidates. Satisfaction of these and other regulatory requirements is costly, time consuming, uncertain and subject to unanticipated delays. It is possible that none of the drug candidates we are developing will obtain marketing approval. In connection with the clinical trials for belinostat, CR011-vcMMAE and any other drug candidate we may seek to develop in the future, we face risks that:

- the drug candidate may not prove to be efficacious;
- the drug may not prove to be safe;

- the results may not confirm the positive results from earlier preclinical studies or clinical trials; and
- the results may not meet the level of statistical significance required by the FDA or other regulatory authorities.

We have limited experience in conducting and managing the clinical trials necessary to obtain regulatory approvals, including approval by the FDA. The time required to complete clinical trials and for the FDA and other countries' regulatory review processes is uncertain and typically takes many years. Our analysis of data obtained from preclinical and clinical activities is subject to confirmation and interpretation by regulatory authorities, which could delay, limit or prevent regulatory approval. We may also encounter unanticipated delays or increased costs due to government regulation from future legislation or administrative action or changes in FDA policy during the period of product development, clinical trials and FDA regulatory review.

Any delay in obtaining, or failure to obtain, required approvals could materially adversely affect our ability to generate revenues from the particular drug candidate. Furthermore, any regulatory approval to market a product may be subject to limitations on the indicated uses for which we may market the product. These limitations may limit the size of the market for the product. We are also subject to numerous foreign regulatory requirements governing the conduct of clinical trials, manufacturing and marketing authorization, pricing and third-party reimbursement. The foreign regulatory approval process includes all of the risks associated with FDA approval described above as well as risks attributable to the satisfaction of foreign requirements. Approval by the FDA does not ensure approval by regulatory authorities outside the United States. Foreign jurisdictions may have different approval procedures than those required by the FDA and may impose additional testing requirements for our drug candidates.

**Even if we obtain regulatory approvals, our drug candidates will be subject to ongoing regulatory review. If we fail to comply with continuing U.S. and applicable foreign regulations, we could lose those approvals, and our business would be seriously harmed.**

Even if we receive regulatory approval of any drugs we may develop, we will be subject to continuing regulatory review, including the review of clinical results which are reported after our drug candidates become commercially available approved drugs. Since drugs are more widely used by patients once approval has been obtained, side effects and other problems may be observed after approval that were not seen or anticipated during pre-approval clinical trials. In addition, the manufacturer, and the manufacturing facilities we use to make any of our drug candidates, will also be subject to periodic review and inspection by the FDA. The subsequent discovery of previously unknown problems with the drug, manufacturer or facility may result in restrictions on the drug, manufacturer or facility, including withdrawal of the drug from the market. If we fail to comply with applicable continuing regulatory requirements, we may be subject to fines, suspension or withdrawal of regulatory approval, product recalls and seizures, operating restrictions and criminal prosecutions.

**Our business has a substantial risk of product liability claims. If we are unable to obtain appropriate levels of insurance, a product liability claim could adversely affect our business.**

Our business exposes us to significant potential product liability risks that are inherent in the development, manufacturing and sales and marketing of human therapeutic products. Although we do not currently commercialize any products, claims could be made against us based on the use of our drug candidates in clinical trials. We currently have clinical trial insurance and will seek to obtain product liability insurance prior to the sales and marketing of any of our drug candidates. However, our insurance may not provide adequate coverage against potential liabilities. Furthermore, clinical trial and product liability insurance is becoming increasingly expensive. As a result, we may be unable to maintain current amounts of insurance coverage or obtain additional or sufficient insurance at a reasonable cost to protect against losses that could have a material adverse effect on us. If a claim is brought against us, we might be required to pay legal and other expenses to defend the claim, as well as uncovered damages awards resulting from a claim brought successfully against us. Furthermore, whether or not we are ultimately successful in defending any such claims, we might be required to direct significant financial and managerial resources to such defense, and adverse publicity is likely to result.



**If we are unable to establish sales and marketing capabilities or enter into agreements with third parties to market and sell our drug candidates, we may not generate product revenue.**

We have no commercial products and we do not currently have an organization for the sales and marketing of pharmaceutical products. In order to successfully commercialize any drugs that may be approved in the future by the FDA or comparable foreign regulatory authorities, we must build our sales and marketing capabilities or make arrangements with third parties to perform these services. There are risks involved with establishing our own sales and marketing capabilities, as well as entering into arrangements with third parties to perform these services. For example, developing a sales force is expensive and time consuming and could delay any product launch. In addition, to the extent that we enter into arrangements with third parties to perform sales, marketing and distribution services, we will have less control over sales of our products, and our future revenues would depend heavily on the success of the efforts of these third parties. If we are unable to establish adequate sales, marketing and distribution capabilities, whether independently or with third parties, we may not be able to generate product revenue and may not become profitable.

**If physicians, patients and third-party payors do not accept our future drugs, we may be unable to generate significant revenue, if any.**

Even if belinostat, CR011-vcMMAE or any other drug candidates we may develop or acquire in the future obtain regulatory approval, they may not gain market acceptance among physicians, patients and health care payors. Physicians may elect not to recommend these drugs for a variety of reasons including:

- timing of market introduction of competitive drugs;
- lower demonstrated clinical safety and efficacy compared to other drugs;
- lack of cost-effectiveness;
- lack of availability of reimbursement from third-party payors;
- convenience and ease of administration;
- prevalence and severity of adverse side effects;
- other potential advantages of alternative treatment methods; and
- ineffective marketing and distribution support.

If our approved drugs fail to achieve market acceptance, we would not be able to generate sufficient revenue from product sales to maintain or grow our business.

**If third-party payors do not adequately reimburse customers for any of our product candidates that are approved for marketing, they might not be purchased or used, and our revenues and profits will not develop or increase.**

Our revenues and profits will depend heavily upon the availability of adequate reimbursement for the use of our approved product candidates from governmental and other third-party payors, both in the United States and in foreign markets. Reimbursement by a third-party payor may depend upon a number of factors, including the third-party payor's determination that use of a product is:

- a covered benefit under its health plan;
- safe, effective and medically necessary;
- appropriate for the specific patient;
- cost-effective; and
- neither experimental nor investigational.

Obtaining reimbursement approval for a product from each government or other third-party payor is a time-consuming and costly process that could require us to provide supporting scientific, clinical and cost-effectiveness data for the use of our products to each payor. We may not be able to provide data sufficient to gain acceptance with respect to reimbursement. Even when a payor determines that a product is eligible for reimbursement, the payor may impose coverage limitations that preclude payment for some uses that are approved by the FDA or comparable authority. Moreover, eligibility for coverage does not imply that any product will be reimbursed in all cases or at a rate that allows us to make a profit or even cover our costs. Interim payments for new products, if applicable, may also not be sufficient to cover our costs and may not be made permanent. Reimbursement rates may vary according to the use of the product and the clinical setting in which it is used, may be based on payments allowed for lower-cost products that are already reimbursed, may be incorporated into existing payments for other products or services, and may reflect budgetary constraints and/or imperfections in Medicare, Medicaid or other data used to calculate these rates. Net prices for products may be reduced by mandatory discounts or rebates required by government health care programs or by any future relaxation of laws that restrict imports of certain medical products from countries where they may be sold at lower prices than in the United States.

There have been, and we expect that there will continue to be, federal and state proposals to constrain expenditures for medical products and services, which may affect payments for our products. The Centers for Medicare and Medicaid Services, or CMS, frequently change product descriptors, coverage policies, product and service codes, payment methodologies and reimbursement values. Third-party payors often follow Medicare coverage policy and payment limitations in setting their own reimbursement rates, and both CMS and other third-party payors may have sufficient market power to demand significant price reductions. Due in part to actions by third-party payors, the health care industry is experiencing a trend toward containing or reducing costs through various means, including lowering reimbursement rates, limiting therapeutic class coverage and negotiating reduced payment schedules with service providers for drug products.

Our inability to promptly obtain coverage and profitable reimbursement rates from government-funded and private payors for our products could have a material adverse effect on our operating results and our overall financial condition.

**We depend on attracting and retaining key employees.**

We are highly dependent on the principal members of our senior management and scientific staff. Our future success will depend in part on the continued services of our key management and scientific personnel. The loss of services of any of these personnel could materially adversely affect our business, financial condition, and results of operations. We have entered into employment agreements with all of the principal members of our senior management team. Our future success will also depend in part on our ability to attract, hire, and retain additional personnel. There is intense competition for qualified personnel and there can be no assurance that we will be able to continue to attract and retain such personnel. Failure to attract and retain key personnel could materially, adversely affect our business, financial condition, and results of operations.

**We depend on academic collaborators, consultants, and scientific advisors.**

We have relationships with collaborators, consultants, and scientific advisors at academic and other institutions that conduct research or provide consulting services at our request. These collaborators, consultants, and scientific advisors are not our employees. Substantially all of our collaborators, consultants, and scientific advisors are employed by employers other than us and may have commitments to, or collaboration, consulting, or advisory contracts with, other entities that may limit their availability to us. As a result, we have limited control over their activities and, except as otherwise required by our collaboration, consulting agreements, and advisory agreements, can expect only limited amounts of their time to be dedicated to our activities. Our ability to explore and validate biological activity of therapeutic candidates and commercialize products based on these discoveries may depend, in part, on continued collaborations with researchers at academic and other institutions. We may not be able to negotiate additional acceptable collaborations with collaborators, consultants, or scientific advisors at academic and other institutions.

Our academic collaborators, consultants, and scientific advisors may have relationships with other commercial entities, some of which could compete with us. Our academic collaborators, consultants and scientific advisors sign agreements which provide for confidentiality of our proprietary information and of the results of studies. We may not be able to maintain the confidentiality of our technology and other confidential information in connection with every academic collaboration, consulting, or advisory arrangement, and any unauthorized dissemination of our confidential information could materially adversely affect our business, financial condition, and results of operations. Further, any such collaborator, consultant or advisor may enter into an employment agreement or consulting arrangement with one of our competitors.

**Competition in our field is intense and likely to increase.**

We are subject to significant competition in the development and commercialization of new drugs from organizations that are pursuing strategies, approaches, technologies and products that are similar to our own. Many of the organizations competing with us have greater capital resources, research and development staffs and facilities and marketing capabilities. We face competition from a number of biotechnology and pharmaceutical companies with products in preclinical development, clinical trials, or approved for conditions identical or similar to the ones we are pursuing.

We are aware of specific companies that are developing HDAC inhibitors for use in the treatment of cancer that may be competitive with ours. With respect to our HDAC inhibitor, belinostat, Merck & Co., Inc. recently received FDA approval to market Zolinza, or vorinostat, the first HDAC inhibitor approved for use in the U.S., for the treatment of cutaneous T-cell lymphoma. Bayer Schering Pharma AG, Gloucester Pharmaceuticals, Inc., Methylgene, Inc., and Novartis Pharma AG are also currently evaluating HDAC inhibitors in clinical trials for the treatment of cancers, and in combinations with other chemotherapies, that are similar to approaches and indications we are pursuing. In addition, many other pharmaceutical and biotechnology companies are engaged in research and development for the treatment of cancer from which we may face intense competition. We expect belinostat to compete on the basis of efficacy, routes of administration, and potentially safety and economic value compared to drugs used in current practice or currently being developed.

**If we do not obtain adequate intellectual property protection, we may not be able to prevent our competitors from commercializing our discoveries.**

Our business and competitive position depends on our ability to protect our products and processes, including obtaining patent protection on genes and proteins for which we or our collaborators discover utility, and on products, methods and services based on such discoveries.

The patent positions of pharmaceutical, biopharmaceutical, and biotechnology companies, including us, are generally uncertain and involve complex legal and factual questions. The law relating to the scope of patent claims in the technology fields in which we operate is evolving, and the degree of future protection for our proprietary rights is uncertain. Furthermore, even if patents are issued to us, there can be no assurance that others will not develop alternative technologies or design around the patented technologies developed by us. Therefore, our patent applications may not protect our products, processes, and technologies for at least the following reasons:

- there is no guarantee that any of our pending patent applications will result in additional issued patents;
- there is no guarantee that any patents issued to us or our collaborative customers will provide a basis for commercially viable products;
- there is no guarantee that any patents issued to us or our collaborative customers will provide us with any competitive advantages;
- there is no guarantee that any patents issued to us or our collaborative customers will not be challenged or circumvented or invalidated by third parties; and
- there is no guarantee that any patents issued to others will not have an adverse effect on our ability to do business.

The issuance of a patent is not conclusive as to its validity or enforceability, nor does it provide the patent holder with freedom to operate without infringing the patent rights of others. A patent could be challenged by litigation and, if the outcome of such litigation were adverse to the patent holder, competitors could be free to use the subject matter covered by the patent. The invalidation of key patents owned by or licensed to us or the non-approval of pending patent applications could increase competition and materially adversely affect our business, financial condition, and results of operations.

Litigation, which could result in substantial cost to us, also may be necessary to enforce our patent and proprietary rights and/or to determine the scope and validity of others' proprietary rights. We may participate in interference proceedings that may in the future be declared by the USPTO to determine priority of invention, which could result in substantial cost to us. The outcome of any such litigation or interference proceeding might not be favorable to us, and we might not be able to obtain licenses to technology that we require or, even if obtainable, such technology may not be available at a reasonable cost.

**If we infringe on the intellectual property rights of others, we may be required to obtain a license, pay damages, and/or cease the commercialization of our technology.**

We believe that there may be significant litigation in the industry regarding patent and other intellectual property rights. It is possible that the commercialization of our technology could infringe the patents or other intellectual property rights of others. In addition, others may have filed, and in the future are likely to file, patent applications covering genes or gene products or antibodies against the gene products that are similar or identical to our products. Any such patent applications may have priority over our patent applications, and may result in the issuance of patents to others that could be infringed by our products or processes.

A number of competitors are producing proteins from genes and claiming both the proteins as potential therapeutics as well as the antibodies against these proteins. In many cases, generic antibody claims are being issued by the USPTO even though competitors have not actually made antibodies against the protein of interest, or do not have cellular, animal, or human data to support the use of these antibodies as therapeutics. These claims to proteins as therapeutics, to all antibodies against a protein, and to methods of use in broad human indications are being filed at a rapid rate, and patents including such claims have issued and may continue to issue. Such patents may prevent us from commercializing some products or processes or, if licenses under the patents are made available, may make the royalty burden on these products and processes so high as to prevent commercial success.

In addition, we have sought and intend to continue to seek patent protection for novel uses for genes and proteins and therapeutic antibodies that may have been patented by third parties. In such cases, we would need a license from the holder of the patent with respect to such gene or protein in order to make, use, or sell such gene or protein for such use. We may not be able to acquire such licenses on commercially reasonable terms, if at all.

Any legal action against us or our collaborators for patent infringement relating to our products and processes could, in addition to subjecting us to potential liability for damages, require us or our collaborators to obtain a license in order to continue to manufacture or market the affected products and processes, or could enjoin us from continuing to manufacture or market the affected products and processes. There can be no assurance that we or our collaborators would prevail in any such action or that any license required under any such patent would be made available on commercially acceptable terms, if at all. If we become involved in such litigation, it could consume a substantial portion of our managerial and financial resources.

**We cannot be certain that our security measures will protect our confidential information and proprietary technologies.**

We rely upon trade secret protection for some of our confidential and proprietary information that is not the subject matter for which patent protection is being sought. We have taken security measures to protect our proprietary technologies, processes, information systems, and data and continue to explore ways to enhance such

security. Such measures, however, may not provide adequate protection for our trade secrets or other proprietary information. While we require employees, academic collaborators, consultants, and scientific advisors to enter into confidentiality and/or non-disclosure agreements where appropriate, any of the following could still occur:

- proprietary information could be disclosed;
- others may independently develop substantially equivalent proprietary information and techniques or otherwise gain access to our trade secrets, technology, or disclose such information; or
- we may not be able to meaningfully protect our trade secrets.

If the security of our confidential information is breached, our business could be materially adversely affected.

**We depend upon our ability to license technologies.**

We may have to acquire or license certain components of our technologies or products from third parties. We may not be able to acquire from third parties or develop new technologies, either alone or with others. We may not be able to acquire licenses on commercially reasonable terms, if at all. Failure to license or otherwise acquire necessary technologies could materially adversely affect our business, financial condition, and results of operations.

**If we do not comply with laws regulating the protection of the environment and health and human safety, our business could be adversely affected.**

Our research and development efforts involve the controlled use of hazardous materials, chemicals and various radioactive compounds. Although we believe that our safety procedures for handling and disposing of these materials comply with the standards prescribed by state and federal regulations, the risk of accidental contamination or injury from these materials cannot be eliminated. If an accident occurs, we could be held liable for resulting damages, which could be substantial. We are also subject to numerous environmental, health and workplace safety laws and regulations, including those governing laboratory procedures, exposure to blood-borne pathogens and the handling of biohazardous materials. Although we maintain workers' compensation insurance to cover us for costs we may incur due to injuries to our employees resulting from the use of these materials, this insurance may not provide adequate coverage against potential liabilities. Due to the small amount of hazardous materials that we generate, we do not currently maintain any environmental liability or toxic tort claim insurance coverage to cover pollution conditions or other extraordinary or unanticipated events relating to our use and disposal of hazardous materials. Additional federal, state and local laws and regulations affecting our operations may be adopted in the future. We may incur substantial costs to comply with, and substantial fines or penalties if we violate, any of these laws or regulations.

## Risks Related to Our Financial Results

**We have a large amount of convertible debt and our debt service obligations may prevent us from taking actions that we would otherwise consider to be in our best interests.**

As of December 31, 2007, we had total debt of \$69.9 million which is due in February 2011; and for the year ended December 31, 2007, we had a deficiency of earnings available to cover fixed charges of \$50.1 million. A variety of uncertainties and contingencies will affect our future performance, many of which are beyond our control. We may not generate sufficient cash flow in the future to enable us to meet our anticipated fixed charges, including our debt service requirements. The following table shows, as of December 31, 2007, the remaining aggregate amount of our interest payments due in each of the years listed (*in millions*):

<u>Year</u>	<u>Aggregate Interest</u>
2008 .....	\$2.8
2009 .....	2.8
2010 .....	2.8
2011 .....	<u>1.4</u>
Total .....	<u>\$9.8</u>

Our substantial leverage could have significant negative consequences for our future operations, including:

- increasing our vulnerability to general adverse economic and industry conditions;
- limiting our ability to obtain additional financing;
- requiring the dedication of a substantial portion of our expected cash flow to service our indebtedness, thereby reducing the amount of our expected cash flow available for other purposes, including working capital and capital expenditures;
- limiting our flexibility in planning for, or reacting to, changes in our business and the industry in which we compete; or
- placing us at a possible competitive disadvantage compared to less leveraged competitors and competitors that have better access to capital resources.

**We will likely need to raise additional funding, which may not be available on favorable terms, if at all.**

We believe that we have sufficient capital to satisfy our funding requirements into 2011. However, our future funding requirements will depend on many factors and we anticipate that we will likely need to raise additional capital to fund our business plan and research and development efforts on a going-forward basis. To the extent that we need to obtain additional funding, the amount of additional capital we would need to raise would depend on many factors, including:

- the number, breadth, and progress of our research, product development, and clinical programs;
- our ability to establish and maintain ongoing and future potential strategic collaborations;
- the progress of our collaborators;
- our costs incurred in enforcing and defending our patent claims and other intellectual property rights;
- the costs and timing of obtaining regulatory approvals for any of our products; and
- the extent to which RDO makes successful claims for indemnification under the Merger Agreement relating to the sale of 454.

We expect that we would raise any additional capital we require through public or private equity offerings, debt financings, or additional collaborations and licensing arrangements. We cannot be certain that in the future these sources of liquidity will be available when needed or that our actual cash requirements will not be greater than anticipated. In appropriate strategic situations, we may seek financial assistance from other sources, including contributions by others to joint ventures and other collaborative or licensing arrangements for the development and testing of products under development. If we raise additional capital by issuing equity securities, the issuance of such securities would result in ownership dilution to our stockholders. If we raise additional funds through collaborations and licensing arrangements, we may be required to relinquish rights to certain of our technologies or product candidates, or to grant licenses on unfavorable terms. The relinquishing of rights or granting of licenses on unfavorable terms could materially adversely affect our business, financial condition, and results of operations. If adequate funds are not available, our business, financial condition, and results of operations would be materially adversely affected. However, should we be unable to obtain future financing either through the methods described above or through other means, we may be unable to meet the critical objective of our long-term business plan, which is to successfully develop and market pharmaceutical products. If we require additional capital at a time when investment in biotechnology companies such as ours, or in the marketplace in general, is limited due to the then prevailing market or other conditions, we may not be able to raise such funds at the time that we desire or any time thereafter.

**If the proceeds we receive from the sale of our stake in 454 are less than anticipated due to indemnification claims against the escrow account, our liquidity may be impaired, and we may be forced to seek alternative sources of financing sooner than anticipated.**

We expect to use the proceeds we receive from the sale of our stake in 454 to make further investments in our clinical drug pipeline; however, as described in Note 13 to our condensed consolidated financial statements included in this Annual Report on Form 10-K, \$25 million of the total sale proceeds to 454 stockholders has been placed in an escrow account in order to secure certain indemnification rights of RDO and its affiliates. Our portion of the \$25 million escrow fund totals \$14.5 million which includes interest. Under the Merger Agreement, Roche is currently entitled to indemnification for damages incurred by RDO, 454 and certain other RDO affiliates upon the occurrence of certain events, including: breaches of representations, warranties or covenants made by 454 in the Merger Agreement; and costs incurred by the indemnified parties in connection with the sale of 454 that were not previously taken into account in determining the price paid by RDO for 454. If RDO makes a successful claim for indemnification due to one or more of these reasons, the amount of the escrow account that is available for distribution to us and other 454 stockholders at the end of the 15-month escrow period will be reduced or eliminated.

**Our quarterly operating results have fluctuated greatly and may continue to do so.**

Our operating results have fluctuated on a quarterly basis. We expect that losses will continue to fluctuate from quarter to quarter and that these fluctuations may be substantial. Our results of operations are difficult to predict and may fluctuate significantly from period to period, which may cause our stock price to decline and result in losses to investors. Some of the factors that could cause our operating results to fluctuate include:

- the nature, pricing, and timing of products and services provided to our collaborators and customers;
- our ability to compete effectively in our therapeutic development efforts against competitors that have greater financial or other resources or drug candidates that are in further stages of development;
- acquisition, licensing, and other costs related to our operations;
- losses and expenses related to our investments;
- regulatory developments;
- regulatory actions and changes related to the development of drugs;
- changes in intellectual property laws that affect our patent rights;

- payments of milestones, license fees, or research payments under the terms of our external alliances and collaborations and our ability to monitor and enforce such payments; and
- the timing of intellectual property licenses that we may enter.

We believe that quarterly comparisons of our financial results are not necessarily meaningful and should not be relied upon as an indication of future performance. In addition, fluctuations in quarterly results could affect the market price of our common stock in a manner unrelated to our long-term operating performance.

**Our debt investments are impacted by the financial viability of the underlying companies or assets.**

We have a diversified portfolio of investments, of which 31% of our debt investments at December 31, 2007 were invested in U.S. Treasuries and mortgage backed securities that are sponsored by the U.S. Government. Additionally, we have 28.6% of our investment portfolio in asset backed securities which consist of auto, credit card and equipment loans all with AAA ratings by Moody's and 11.3% of our investment portfolio in mortgage backed securities which are all sponsored by the US Government. Our fixed-rate debt investments comply with our policy of investing in only investment-grade debt instruments. The ability for the debt to be repaid upon maturity or to have a viable resale market is dependent, in part, on the financial success of the underlying company or assets. Should the underlying company or assets suffer significant financial difficulty, the debt instrument could either be downgraded or, in the worst case, our investment could be worthless. This would result in our losing the cash value of the investment and incurring a charge to our statement of operations.

**The market price of our common stock is highly volatile.**

The market price of our common stock has fluctuated widely and may continue to do so. For example, during the fiscal year 2007, the closing price of our stock ranged from a high of \$4.99 per share to a low of \$0.73 per share. Many factors could cause the market price of our common stock to rise and fall. These factors include:

- variations in our quarterly operating results;
- announcements of clinical results, technological innovations, or new products by us or our competitors;
- introduction of new products or new pricing policies by us or our competitors;
- acquisitions or strategic alliances by us or others in our industry;
- announcement by the government or other agencies regarding the economic health of the United States and the rest of the world;
- the hiring or departure of key personnel;
- changes in market valuations of companies within the biotechnology industry; and
- changes in estimates of our performance or recommendations by financial analysts.

**Our common stock could be delisted from the NASDAQ Global Market if our stock price continues to trade below \$1.00 per share.**

On January 28, 2008, we received notification from The NASDAQ Stock Market LLC, or NASDAQ, indicating that we are not in compliance with NASDAQ Marketplace Rule 4450(a)(5), or the Rule, because the closing bid price per share for the our common stock had been below \$1.00 per share, or the Minimum Bid Price Requirement, for 30 consecutive business days. In accordance with NASDAQ Marketplace Rule 4450(e)(2), we were provided 180 calendar days, or until July 28, 2008, to regain compliance.

To regain compliance with the Minimum Bid Price Requirement, the closing bid price of our common stock must remain at \$1.00 per share or more for a minimum of ten consecutive business days. If we do not regain compliance with the Rule by July 28, 2008, we can apply to list our common stock on the NASDAQ Capital



Market and NASDAQ will determine whether we meet the NASDAQ Capital Market initial listing criteria as set forth in NASDAQ Marketplace Rule 4310(c), except for the Minimum Bid Price Requirement. If we meet the NASDAQ Capital Market initial listing criteria, NASDAQ will notify us that we have been granted an additional 180 calendar days to come into compliance with the Minimum Bid Price Requirement. If we do not meet the initial listing criteria, NASDAQ will provide us with written notification that our common stock will be delisted. At that time we would be permitted to appeal NASDAQ's determination to delist our common stock to a NASDAQ Listings Qualifications Panel.

We will seek to regain compliance with the Minimum Bid Price Requirement within the 180 day cure period and are considering alternatives to address compliance with the continued listing standards of the NASDAQ Global Market.

Delisting from the NASDAQ Global Market could have an adverse effect on our business and on the trading of our common stock. If a delisting of our common stock from the NASDAQ Stock Market were to occur, our common stock would trade on the OTC Bulletin Board or on the "pink sheets" maintained by the National Quotation Bureau, Inc. Such alternatives are generally considered to be less efficient markets, and our stock price, as well as the liquidity of our common stock, may be adversely impacted as a result.

**We have significant leverage as a result of the sale of our debt in 2004.**

In February 2004, in connection with the sale of our 4% convertible subordinated notes due 2011, we incurred \$100.0 million of indebtedness. In addition, in March 2004, the initial purchasers exercised their option to purchase an additional \$10.0 million of 4% convertible subordinated notes due in 2011. During 2007, we repurchased a total of \$40.1 million of our 4% convertible subordinated debentures due February 2011, for total consideration of \$31.0 million, plus accrued interest of \$0.4 million to the date of repurchase. As a result of the remaining indebtedness, our interest payment obligations amount to \$2.8 million per year.

The degree to which we are leveraged could adversely affect our ability to obtain further financing for working capital, acquisitions, or other purposes and could make us more vulnerable to industry downturns and competitive pressures. Our ability to meet our debt service obligations will depend upon our future performance, which may be subject to the financial, business, and other factors affecting our operations, many of which are beyond our control.

**There are no restrictive covenants in our indentures relating to our ability to incur future indebtedness.**

The indentures governing our convertible debt due in 2011 do not contain any financial or operating covenants or restrictions on the payment of dividends, the incurrence of indebtedness, transactions with affiliates, incurrence of liens, or the issuance or repurchase of securities by us or any of our subsidiaries. We may therefore incur additional debt, including secured indebtedness senior to these notes.

**Our debt service obligations may adversely affect our cash flow.**

A higher level of indebtedness increases the risk that we may default on our debt obligations. We cannot be certain that we will be able to generate sufficient cash flow to pay the interest on our debt or that future working capital, borrowings, or equity financing will be available to pay or refinance such debt. If we are unable to generate sufficient cash flow to pay the interest on our debt, we may have to delay or curtail our research and development programs. The level of our indebtedness among other things, could:

- make it difficult for us to make payments on our notes;
- make it difficult for us to obtain any necessary financing in the future for working capital, capital expenditures, debt service requirements, or other purposes;

- limit our flexibility in planning for, or reacting to, changes in our business and the industry in which we compete; and
- make us more vulnerable in the event of a downturn in our business.

**Our ability to repurchase notes, if required, with cash upon a change in control or fundamental change may be limited.**

In certain circumstances involving a change of control or fundamental change, we may be required to repurchase some or all of the notes due February 2011. We cannot be certain that we will have sufficient financial resources at such time or would be able to arrange financing to pay the repurchase price of the notes. Our ability to repurchase the notes in such event may be limited by law, by the indenture, and by such indebtedness and agreements as may be entered into, replaced, supplemented, or amended from time to time.

**Securities we issue to fund our operations could cause dilution to our stockholders' ownership.**

We may decide to raise additional funds through a public or private debt or equity financing to fund our operations. If we raise funds by issuing equity securities, the percentage ownership of current stockholders will be reduced, and the new equity securities may have rights with priority over our common stock. We may not be able to obtain sufficient financing on terms that are favorable to us or our existing stockholders, if at all.

Any conversion of our convertible debt into shares of common stock will dilute the ownership interest of our current stockholders. The conversion price of our convertible debt due in February 2011 is approximately \$9.69 per share.

**We may effect future repurchases of our 4% convertible debentures due in February 2011, which may adversely affect our liquidity.**

We may from time to time seek to repurchase or refinance a portion of our outstanding 4% convertible debentures that mature on February 15, 2011. Any repurchases might occur through cash purchases, privately negotiated transactions or otherwise. Such repurchases or exchanges, if any, will depend on prevailing market conditions, our liquidity requirements, contractual restrictions and other factors. The amounts involved in any such transaction, individually or in the aggregate, may be material.

**Item 1B. *Unresolved Staff Comments***

Not applicable.

**Item 2. *Properties***

We maintain executive, administrative and research offices at our Branford, Connecticut location. At December 31, 2007, we leased a total of approximately 56,000 square feet at that location under a lease that expires in June 2008. We also lease approximately 5,000 square feet of additional space that we are not currently occupying and for which the lease expires in October 2008. We believe that our facilities are adequate for our current operations or that suitable additional leased space after June 2008 will be available as needed.

**Item 3. *Legal Proceedings***

We are not currently a party to any material legal proceedings.

**Item 4. *Submission Of Matters To A Vote Of Security Holders***

Not applicable.

## PART II

### Item 5. *Market for the Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities*

#### Market Information

Our common stock is traded on the Nasdaq Global Market under the symbol "CRGN". The following table sets forth, for the periods indicated, the low and high sales prices per share for our common stock, as reported by the Nasdaq Global Market:

	2007	
	Low	High
Quarter Ended March 31, 2007 .....	\$2.95	\$4.99
Quarter Ended June 30, 2007 .....	1.82	3.19
Quarter Ended September 30, 2007 .....	1.08	2.05
Quarter Ended December 31, 2007 .....	0.73	1.58
	2006	
	Low	High
Quarter Ended March 31, 2006 .....	\$3.02	\$5.41
Quarter Ended June 30, 2006 .....	3.03	5.01
Quarter Ended September 30, 2006 .....	2.73	3.55
Quarter Ended December 31, 2006 .....	3.40	4.97

On January 28, 2008, we received written notification from The NASDAQ Stock Market LLC, or NASDAQ, advising us that the bid price of our common stock for the previous 30 consecutive trading days had closed below the minimum \$1.00 per share, or the Minimum Bid Price Requirement, required for continued listing on the NASDAQ Global Market pursuant to NASDAQ Marketplace Rule 4450(a)(5), or the Rule. The Notice has no effect on the listing of our common stock at this time. Pursuant to NASDAQ Marketplace Rule 4450(e)(2), we have been provided an initial period of 180 calendar days, or until July 28, 2008, to regain compliance with the Minimum Bid Price Requirement. To regain compliance with the Minimum Bid Price Requirement, the closing bid price of our common stock must remain at \$1.00 per share or more for a minimum of ten consecutive business days. If we do not regain compliance with the Rule by July 28, 2008, we can apply to list our common stock on the NASDAQ Capital Market and NASDAQ will determine whether we meet the NASDAQ Capital Market initial listing criteria as set forth in NASDAQ Marketplace Rule 4310(c), except for the Minimum Bid Price Requirement. If we meet the NASDAQ Capital Market initial listing criteria, NASDAQ will notify us that we have been granted an additional 180 calendar days to come into compliance with the Minimum Bid Price Requirement. If we do not regain compliance by July 28, 2008, NASDAQ will provide notice to us that our common stock will be delisted from the NASDAQ Global Market.

#### Stockholders

As of February 29, 2008, there were approximately 198 stockholders of record of our common stock and, according to our estimates, 5,147 beneficial owners of our common stock.

#### Dividends

We have never paid cash dividends on our common stock and do not anticipate declaring any cash dividends in the foreseeable future. We currently intend to retain earnings, if any, to finance the development of our business.

#### Equity Compensation Plan Information

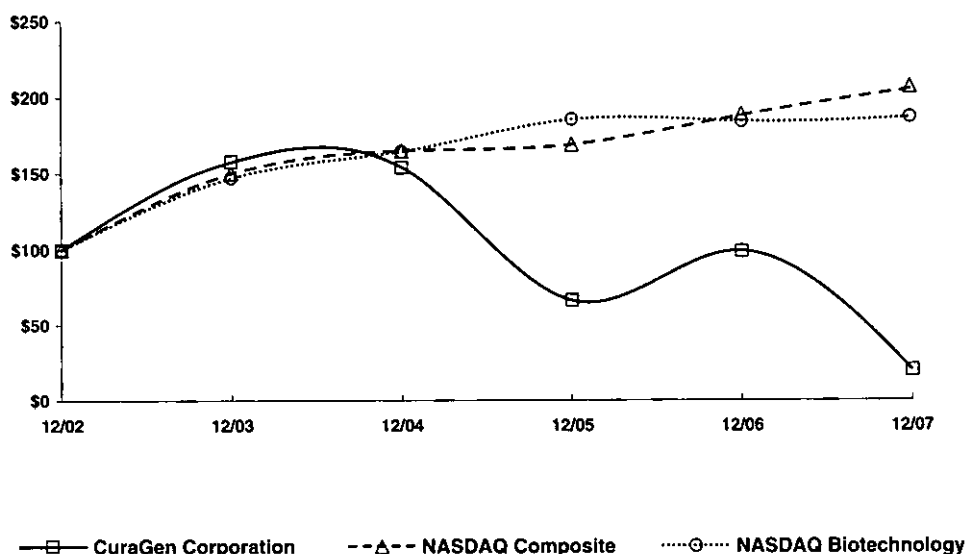
Information relating to compensation plans under which our equity securities are authorized for issuance is set forth under "Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters" in our definitive proxy statement for our 2008 Annual Meeting of Stockholders.

## Performance Graph

The performance graph compares CuraGen Corporation's cumulative 5-year total shareholder return on common stock with the cumulative total returns of The NASDAQ Composite Index and The NASDAQ Biotechnology Index (capitalization weighted). The graph tracks the performance of a \$100 investment in our common stock and in each of the designated indexes assuming (with the reinvestment of all dividends) for the period 12/31/2002 to 12/31/2007. The stock price performance included in this graph is not necessarily indicative of future stock price performance.

### COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN<sup>(1)(2)(3)</sup>

Among CuraGen Corporation, The NASDAQ Composite Index  
And The NASDAQ Biotechnology Index  
(Capitalization Weighted)



	Base Period 12/31/02	Cumulative Total Return				
		12/31/03	12/31/04	12/31/05	12/31/06	12/31/07
CuraGen Corporation .....	\$100.00	\$157.63	\$153.98	\$ 66.24	\$ 98.92	\$ 19.78
NASDAQ Composite Index .....	100.00	149.75	164.64	168.60	187.83	205.22
NASDAQ Biotechnology Index .....	100.00	146.95	164.05	185.29	183.09	186.22

(1) Graph assumes \$100 invested on December 31, 2002 in our common stock, The NASDAQ Composite Index and The NASDAQ Biotechnology Index (capitalization weighted).

(2) Total return assumes reinvestment of dividends.

(3) Year ended December 31.

The information included under the heading "Performance Graph" in Item 5 of this Annual Report on Form 10-K is "furnished" and not "filed" and shall not be deemed to be "soliciting material" or subject to Regulation 14A, shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act.

# **Item 6. Selected Consolidated Financial Data**

The selected consolidated financial data set forth below are derived from our audited consolidated balance sheets as of December 31, 2007 and 2006 and the related audited consolidated statements of operations, stockholders' equity and cash flows for each of the three years in the period ended December 31, 2007 and notes thereto, which are included elsewhere in this report. The sale of 454 Life Sciences Corporation on May 25, 2007 has been accounted for as a discontinued operation and is presented as such for all periods. The consolidated balance sheet data as of December 31, 2005, 2004 and 2003 and the consolidated statements of operations data for each of the two years in the periods ended December 31, 2004 and 2003 have been derived from our related financial statements which are not included herein. Historical results are not necessarily indicative of future results. See the notes to the consolidated financial statements for an explanation of the method used to determine the number of shares used in computing basic and diluted net loss per common share. The selected consolidated financial data set forth below should be read in conjunction with, and is qualified in its entirety by our audited consolidated financial statements and related notes thereto found at "Item 8. Financial Statements and Supplementary Data" and "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" which are included elsewhere in this Annual Report on Form 10-K.

	Year Ended December 31,				
	2007	2006	2005	2004	2003
	(In thousands, except per share amounts)				
<b>Consolidated Statement of Operations Data</b>					
Total revenue . . . . .	\$ 88	\$ 2,298	\$ 4,825	\$ 4,684	\$ 6,918
Total operating expenses . . . . .	59,710	57,657	72,503	80,235	71,292
Loss from continuing operations . . . . .	(49,963)	(57,165)	(69,168)	(79,588)	(65,151)
Income (loss) from discontinued operations . . . . .	75,361	(2,675)	(4,076)	(10,809)	(9,345)
Net income (loss) . . . . .	25,398	(59,839)	(73,244)	(90,397)	(74,497)
Basic and diluted loss per share from continuing operations . . . . .	(0.89)	(1.04)	(1.33)	(1.59)	(1.32)
Basic and diluted income (loss) per share from discontinued operations . . . . .	1.34	(0.05)	(0.08)	(0.22)	(0.19)
Basic and diluted net income (loss) per share . . . . .	0.45	(1.09)	(1.41)	(1.81)	(1.51)
Weighted average number of shares used in computing basic and diluted net income (loss) per share . . . . .	55,853	54,896	51,991	49,943	49,335

	December 31,				
	2007	2006	2005	2004	2003
	(In thousands)				
<b>Consolidated Balance Sheet Data</b>					
Cash and investments .....	\$100,444	\$164,393	\$211,238	\$320,296	\$319,444
Restricted cash .....	14,533	—	—	—	—
Total cash and investments and restricted cash ....	114,977	164,393	211,238	320,296	319,444
Working capital .....	107,844	95,985	205,610	316,516	328,868
Total assets .....	119,282	227,294	269,979	366,671	368,742
4% Convertible subordinated notes due 2011 .....	69,890	110,000	110,000	110,000	—
6% Convertible subordinated debentures due 2007 .....	—	66,228	66,228	130,000	150,000
Total convertible subordinated notes and debentures .....	69,890	176,228	176,228	240,000	150,000
Total long-term liabilities .....	70,975	111,174	176,228	240,000	150,000
Accumulated deficit .....	487,574	512,972	453,133	379,889	289,492
Stockholders' equity .....	38,465	8,767	56,484	106,926	197,667
Cash dividends declared per common share .....	None	None	None	None	None

## Deficiency of Earnings Available to Cover Fixed Charges

The following table sets forth our consolidated deficiency of earnings available to cover fixed charges.

	Year Ended December 31,				
	2007	2006	2005	2004	2003
	(In thousands)				
Deficiency of earnings available to cover fixed charges (1) (2) .....	(\$50,148)	(\$57,540)	(\$69,571)	(\$80,770)	(\$65,580)

- (1) Earnings were inadequate to cover fixed charges. We needed additional earnings, as indicated by the deficiency of earnings available to cover fixed charges for each of the periods presented above, to achieve a ratio of earnings to fixed charges of 1.0x.
- (2) The deficiency of earnings available to cover fixed charges is computed by subtracting fixed charges from the loss from continuing operations before income tax benefit plus fixed charges. Fixed charges consist of interest expense plus that portion of net rental expense deemed representative of interest.

## Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

*Our management's discussion and analysis of our financial condition and results of operations include the identification of certain trends and other statements that may predict or anticipate future business or financial results that are subject to important factors that could cause our actual results to differ materially from those indicated. See Item 1A, "Risk Factors."*

### Overview

We are a biopharmaceutical development company dedicated to improving the lives of patients by developing novel therapeutics for the treatment of cancer. We have taken a systematic approach to identifying and validating promising therapeutics and are now focused on developing and advancing these potential drug candidates through clinical development.

We are currently focusing the majority of our human and financial resources on our oncology therapeutics. We also maintain a portfolio of protein, antibody, and small molecule therapeutics, and targets in various stages of development in the area of oncology.

- **Belinostat**—is a small molecule therapeutic, formerly referred to as PXD101, which inhibits the activity of the enzyme HDAC and is being evaluated for the treatment of solid and hematologic cancers either alone or in combination with other active chemotherapeutic drugs and newer targeted agents. We are actively conducting clinical trials evaluating intravenous and oral belinostat for:

<u>Indication</u>	<u>Phase</u>	<u>Regimen</u>	<u>Initiation of Patient Enrollment</u>	<u>Status</u>
T-cell lymphomas	II	Monotherapy	January 2006	Enrollment ongoing. Updated results anticipated in the first half of 2008.
Ovarian cancer	II	Combination with paclitaxel and/or carboplatin	November 2006	Enrollment complete. Updated results anticipated in the first half of 2008.
Bladder cancer	II	Combination with paclitaxel and/or carboplatin	June 2007	Enrollment ongoing.
Solid tumors	Ib	Combination with 5-fluorouracil ("5-FU")	September 2005	Enrollment ongoing.
Soft tissue sarcoma	I/II	Combination with doxorubicin	May 2007	Enrollment ongoing.
Acute myeloid leukemia	I/II	Combination with idarubicin	August 2007	Enrollment ongoing.
Advanced solid tumors	I	Oral belinostat monotherapy	August 2006	Enrollment ongoing.

Under a Clinical Trial Agreement, or CTA, that we signed with the National Cancer Institute, or NCI, the NCI is sponsoring ten clinical trials evaluating intravenous belinostat for the treatment of:

<i>Indication</i>	<i>Phase</i>	<i>Regimen</i>	<i>Initiation of Patient Enrollment</i>
Advanced solid tumors or lymphomas	Ib	Combination with Velcade®	March 2006
Acute Myelogenous Leukemia	II	Monotherapy	June 2006
Advanced solid tumors	Ib	Combination with cis-retinoic acid	June 2006
Mesothelioma	II	Monotherapy	June 2006
Hepatocellular carcinoma	I/II	Monotherapy	July 2006
Advanced hematologic malignancies	I	Combination with azacitidine	August 2006
B-cell lymphomas	II	Monotherapy	August 2006
Ovarian	II	Monotherapy	November 2006
Myelodysplastic syndrome	II	Monotherapy	November 2006
Thymoma / thymic carcinoma	II	Monotherapy	December 2007

- **CR011-vcMMAE**—is a fully-human monoclonal antibody resulting from our collaboration with Amgen Fremont and utilizes ADC technology licensed from Seattle Genetics to attach MMAE to yield CR011-vcMMAE. In June 2006, we announced that the IND for CR011-vcMMAE was cleared by the FDA and dosing of patients in a Phase I/II clinical trial had begun. The open-label, multi-center, dose escalation study is evaluating the safety, tolerability and pharmacokinetics of CR011-vcMMAE for patients with unresectable Stage III or Stage IV melanoma who have failed no more than one prior line of cytotoxic therapy. The first part of the trial has been evaluating cohorts of patients receiving increasing doses of CR011-vcMMAE to assess safety and determine the MTD. The trial has treated 25 patients with doses of up to 1.88 mg/kg CR011-vcMMAE administered intravenously once every three weeks. The dose escalation assessment of CR011-vcMMAE is ongoing with patients treated at doses up to 2.63 mg/kg. After determination of the MTD, up to approximately 32 additional patients are expected to be enrolled and treated at the MTD to further define safety and activity of CR011-vcMMAE in this efficacy portion of the trial;
- **Velafermin**—is a protein therapeutic we were investigating for the prevention of oral mucositis. We have discontinued the development of this protein after our Phase II dose-confirmatory clinical trial did not meet its primary endpoint. Patients enrolled in this study are being followed for approximately one year post treatment to satisfy protocol-specified safety monitoring. Therefore, the study will not be clinically complete until approximately September 2008. No new obligations will be initiated with this program.

In addition, we have several potential protein, antibody, and small molecule therapeutics that have been evaluated in animal studies. We will continue to evaluate strategic opportunities for these assets through partnerships, licensing, or the filing of IND applications in the future.

### *Summary*

We expect to generate value for our shareholders by developing novel therapeutics. We seek to become profitable by commercializing a subset of therapeutics stemming from our development pipeline, and establishing partnerships with pharmaceutical and biotechnology companies for the development and commercialization of other therapeutics from our development pipeline. Our failure to successfully develop and commercialize pharmaceutical products would materially and adversely affect our business, financial condition, cash and investments balances and results of operations. Royalties or other revenue generated from commercial sales of products developed through the application of our technologies and expertise are not expected for several years, if at all. We expect that our revenue or income sources for at least the next several years may be limited to potential milestones and other potential payments related to partnering one of our drug candidates, and interest income.



While we will continue to explore alternative sources to finance our business activities, including the possibility of public securities offerings and/or private strategic-driven common stock offerings, we cannot be certain that in the future these sources will be available when needed or that our actual cash requirements will not be greater than anticipated. In appropriate strategic situations, we may seek financial assistance from other sources, including the sale of certain assets, contributions by others to joint ventures, and other collaborative or licensing arrangements for the development and testing of products under development. However, should we be unable to obtain future financing either through the methods described above or through other means, we may be unable to meet the critical objective of our long-term business plan, which is to successfully develop and market pharmaceutical products, and may be unable to continue operations. This result could cause our shareholders to lose all or a substantial portion of their investment.

We expect to continue incurring substantial expenses relating to our research and development efforts, as we focus on: preclinical studies and clinical trials required for the development of therapeutic protein, antibody and small molecule product candidates; external programs identified by our platform as being promising and synergistic with our products and expertise. Conducting clinical trials is a lengthy, time-consuming and expensive process. We will incur substantial expenses for, and devote a significant amount of time to, these studies. As a result, we expect to incur continued losses over the next several years. Results of operations for any period may be unrelated to the results of operations for any other period. In addition, historical results should not be viewed as indicative of future operating results.

### **Critical Accounting Policies and Use of Estimates**

Our discussion and analysis of our financial condition and results of operations are based upon our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these consolidated financial statements requires us to make estimates and judgments that affect the reported amount of assets and liabilities, revenues and expenses. On an on-going basis, we evaluate our estimates, including those related to prepaid expenses, accrued expenses, revenue recognition, and stock based compensation. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

While our significant accounting policies are more fully described in Note 1 to our consolidated financial statements, we believe the following accounting policies to be critical to the judgments and estimates used in the preparation of our consolidated financial statements:

#### ***Revenue Recognition***

##### ***Overview***

We recognize revenue when all four criteria are met: (1) persuasive evidence that an arrangement exists; (2) delivery of the products has occurred or services have been rendered; (3) the selling price is fixed or determinable; and (4) the collectibility is reasonably assured, in accordance with Securities and Exchange Commission Staff Accounting Bulletin No. 104, "Revenue Recognition," which sets forth guidelines for the timing of revenue recognition based upon factors such as passage of title, installation, payment and customer acceptance. Determination of criteria (2) and (3) are based on management's judgment regarding delivery of products and the fee charged for products delivered.

##### ***Collaboration Revenue***

During 2007, we recognized collaboration revenue related to the grant of exclusive worldwide rights by our collaboration partner TopoTarget to an unrelated third party of a preclinical HDAC inhibitor for potential use in the field of dermatology. Under our collaboration agreement with TopoTarget, we are entitled to receive 50% of

initial payments received by TopoTarget from such third party. During 2006, we received \$1.3 million which is currently being amortized on a straight line basis commencing in November 2006, the month the agreement was signed, through April 2022, the date the first original patent will expire in the United States. However, in the event that the third party terminates its license agreement with TopoTarget, all unrecognized revenue will be recognized upon termination. We estimated the time period and method of amortization in recording revenue under this agreement. In January 2008, TopoTarget was informed by the third party that it will be terminating the development of the preclinical compound in 2008 and as such the remaining unrecognized revenue of \$1.2 million as of December 31, 2007 is expected to be recognized by us in 2008.

Collaboration revenue during 2006 and 2005 was generated primarily under our Pharmacogenomics Agreement with Bayer, or the Bayer Agreement. Payments received under the terms of the Bayer Agreement consisted of non-refundable fixed quarterly payments received in advance under the Bayer Agreement, which was completed in 2006.

The non-refundable fixed quarterly payments received in advance under the Bayer Agreement related to our future performance of services and were deferred and recognized as revenue when the future performance occurred, based upon the satisfaction of defined metrics of completion, as outlined in the Bayer Agreement, which included proportional performance and project specific deliverables. These metrics were reviewed internally each month to determine the work performed, deliverables met, and, if required, deliverables accepted by Bayer. We estimated the time period over which services were provided and the level of effort in each period. We made judgments based upon the facts and circumstances known to us at the time and in accordance with generally accepted accounting principles.

#### ***Accrued and Prepaid Expenses***

We review new and open contracts, communicate with our applicable personnel to identify services that have been performed on our behalf and estimate the level of service performed and the associated costs incurred for the service when we have not yet been invoiced or otherwise notified of the actual cost for accrued expenses. We also review, with our applicable personnel, services that have been performed when payment was required in advance and estimate the level of service performed and the associated cost incurred. The majority of our service providers invoice us monthly in arrears for services performed, however, some required advanced payments. We make estimates of our accrued and prepaid expenses as of each balance sheet date in our financial statements based on facts and circumstances known to us. We also periodically confirm the accuracy of our estimates with the service providers and make adjustments if necessary. To date, we have not adjusted our estimates at any particular balance sheet date in any material amount. Examples of estimated accrued and prepaid expenses include:

- fees paid to contract research organizations in connection with preclinical and toxicology studies and clinical trials;
- fees paid to investigative sites in connection with clinical trials;
- fees paid to contract manufacturers in connection with the production of clinical trial materials; and
- professional service fees.

We base our accrued and prepaid expenses related to clinical trials on our estimates of the services received and efforts expended related to clinical trials all pursuant to contracts with multiple research institutions and clinical research organizations that conduct and manage clinical trials on our behalf. The financial terms of these agreements are subject to negotiation, vary from contract to contract and may result in uneven payment flows. Payments under some of these contracts depend on factors such as the successful enrollment of patients and the completion of clinical trial milestones. We estimate the time period over which services will be performed and the level of effort to be expended in each period. If the actual timing of the performance of services or the level of effort varies from our estimate, we will adjust accordingly. If we do not identify costs that we have begun to incur or if we underestimate or overestimate the level of services performed or the costs of these services, our actual expenses could differ from our estimates.

## Stock-Based Compensation

We utilized the modified prospective transition method to adopt Statement of Financial Accounting Standards No. 123 (revised 2004) "Share Based Payment", or SFAS 123R on January 1, 2006. Under this method, the provisions of SFAS 123R apply to all awards granted or modified after the date of adoption. In addition, the unrecognized expense of awards not yet vested at the date of adoption, determined under the original provisions of Statement of Financial Accounting Standards No. 123 "Accounting for Share-Based Payment", or SFAS 123, are recorded in net income (loss) in the periods after the date of adoption. Prior to January 2006, we accounted for stock options under the intrinsic value method described in Accounting Principals Board Opinion No. 25, or APB 25, and related Interpretations as permitted by SFAS 123. When applying the intrinsic value method to stock options, we did not record stock-based compensation cost in net income (loss) because the exercise price of our stock options equaled the market price of the underlying stock on the date of grant. Estimates in recording employee stock option expense include utilizing the Black-Scholes option valuation method to estimate the fair value of stock options granted to employees and the number of options that will be forfeited due to employee terminations. The Black-Scholes option valuation method requires inputs for the following three factors: (1) volatility, (2) risk-free interest rate, and (3) expected term of the option. We use historical volatility to determine the expected stock price volatility factor; risk-free interest rates are based on the U.S. Treasury yield curve in effect at the time of grant, for the period corresponding to the approximate expected term of the options; and the expected term has been calculated using the criteria outlined in SAB 107. We estimate future forfeitures of stock options primarily based on historical experience. For additional information on stock-based compensation, please see Note 1 to our condensed consolidated financial statements included in this Annual Report on Form 10-K.

## Results of Operations

### Year 2007 Compared to Year 2006

The following table sets forth a comparison of the components of our net income (loss) for the years ended December 31, 2007 and 2006 (in millions):

	2007	2006	\$ Change	% Change
Collaboration revenue .....	\$ 0.1	\$ 2.3	\$ (2.2)	(96)%
Research and development expenses .....	36.8	44.0	(7.2)	(16)%
General and administrative expenses .....	11.7	13.6	(1.9)	(14)%
Restructuring and related charges .....	11.3	0.0	11.3	*
Interest income .....	5.6	7.2	(1.6)	(22)%
Interest expense .....	5.2	9.4	(4.2)	(45)%
Realized gain on sale of available-for-sale investments, net .....	0.7	0.0	0.7	*
Gain on extinguishment of debt .....	8.4	0.0	8.4	*
Income tax benefit .....	0.2	0.4	(0.2)	(50)%
Loss from continuing operations .....	(50.0)	(57.1)	(7.1)	(12)%
Income (loss) from discontinued operations .....	75.4	(2.7)	78.1	*
Net income (loss) .....	<u>\$ 25.4</u>	<u>\$(59.8)</u>		

\* Based on prior year amounts, percentage change does not provide meaningful information.

**Collaboration revenue.** The decrease in collaboration revenue for year ended December 31, 2007, as compared to the year ended December 31, 2006 was due to the completion of work under the Bayer Agreement during 2006. We do not expect to recognize any additional collaboration revenue during 2008, with the exception of collaboration revenue related to the amortization of the \$1.3 million received during 2006 from TopoTarget's licensing agreement with an unrelated third party. In January 2008, TopoTarget was informed by the third party that it will be terminating the development of the preclinical compound pursuant to which we receive collaboration revenue. Due to the termination of this agreement, we expect to recognize approximately \$1.2 million of collaboration revenue in 2008.

**Research and development expenses.** Research and development expenses consist primarily of: contractual and manufacturing costs; salary and benefits; license fees and milestone payments; supplies; drug supply; depreciation and amortization; and allocated facility costs. Historically, our research and development efforts have been concentrated on three major project areas: clinical trials; preclinical drug candidates; and collaborations. However, upon completion of our work on the Bayer Agreement during the second quarter of 2006, and subsequent to our decision in the first quarter of 2007 to focus our resources exclusively on generating clinical trial results from our lead oncology drug development programs, our research and development efforts are now being concentrated solely on clinical trials. We budget and monitor our research and development costs by expense category, rather than by project, because these costs often benefit multiple projects and/or our technology platform.

Below is a summary that reconciles our total research and development expenses for the years ended December 31, 2007 and 2006 by the major categories (*in millions*):

	<u>2007</u>	<u>2006</u>	<u>\$</u> <u>Change</u>	<u>%</u> <u>Change</u>
Contractual and manufacturing costs .....	\$20.9	\$19.6	\$ 1.3	7%
Salary and benefits .....	9.1	11.0	(1.9)	(17)%
Supplies .....	0.7	1.9	(1.2)	(63)%
License fees and milestone payments .....	0.1	1.3	(1.2)	(92)%
Depreciation and amortization .....	1.2	2.8	(1.6)	(57)%
Allocated facility costs .....	4.8	7.4	(2.6)	(35)%
Total research and development expenses .....	<u>\$36.8</u>	<u>\$44.0</u>		

The decrease in our research and development expenses for the year ended December 31, 2007 as compared to the year ended December 31, 2006 was due to our decision in the first quarter of 2007 to focus our resources exclusively on generating clinical trial results from our lead oncology drug development programs, as well as the second quarter 2007 restructuring, which included the closing of our Biopharmaceutical Sciences Process facility, or BPS, and the third quarter 2007 restructuring related to the termination of velafermin and personnel reductions. The reductions included a decrease in supplies, a decrease in salary and benefits caused by a reduction in personnel, a decrease in depreciation and amortization from a reduction in lab equipment and a decrease in allocated facility costs. We did have an increase in contractual and manufacturing costs due to higher clinical trial expenses related to velafermin and new Phase I/II studies for belinostat in 2007 compared to 2006. We anticipate our research and development expenses for 2008 will decrease as compared to research and development expenses for 2007 in contractual and manufacturing costs as we have discontinued clinical trials in velafermin and will only incur patient follow up cost through 2008.

As soon as we advance a potential clinical candidate into clinical trials, we begin to track the direct research and development expenses associated with that potential clinical candidate. The following table shows the cumulative direct research and development expenses as of December 31, 2007, as well as the current direct research and development expenses for the years ended December 31, 2007 and 2006 which were incurred on or after we started conducting a Phase I clinical trial for a clinical candidate (*in millions*):

<u>Therapeutic Area and Clinical Candidate</u>	<u>Class</u>	<u>Clinical Development Costs</u>			<u>Indication</u>
		<u>Cumulative as of December 31, 2007 (since commencement of Phase I trial)</u>	<u>Year Ended December 31, 2007</u>	<u>Year Ended December 31, 2006</u>	
<b>Oncology</b>					
Belinostat .....	Small Molecule	\$44.1	\$13.6	\$11.4	Various Cancers
CR011-vcMMAE .....	Antibody-Drug Conjugate	\$ 7.1	\$ 2.7	\$ 4.4	Metastatic Melanoma
<b>Cancer Supportive Care</b>					
Velafermin .....	Protein	\$50.3	\$13.2	\$11.5	Oral Mucositis

We expect that the direct research and development expenses incurred in connection with our development of belinostat to decrease in 2008 as compared to 2007 due to the several clinical trials completing enrollment in 2008. We will support a Phase III or registrational program that we expect to initiate in the second half of 2008, pending positive data from the ongoing Phase II trial expected during the first half of 2008. We expect that the direct research and development expenses incurred in connection with our development of CR011-vcMMAE will increase in 2008 as compared to 2007. The expected increase during 2008 is related to higher enrollment of patients into our ongoing Phase I/II trial, and milestone payments due in 2008 upon initiating a Phase II trial, pending positive data from the ongoing Phase I/II trials. We expect that the direct research and development expenses incurred in connection with our development of velafermin will decrease in 2008 as compared to 2007. Although we completed enrollment in our Phase II trial in August 2007 and discontinued further investment in our velafermin program, additional costs associated with planned safety follow up visits and other trial close out activities will be incurred through the third quarter of 2008.

Currently, our potential pharmaceutical products require significant research and development efforts and preclinical testing, and will require extensive evaluation in clinical trials prior to submitting an application to regulatory agencies for their commercial use. Although we are conducting, or have conducted, human studies with respect to belinostat, and CR011-vcMMAE, we may not be successful in developing or commercializing these or other products. Our product candidates are subject to the risks of failure inherent in the development and commercialization of pharmaceutical products and we cannot currently provide reliable estimates as to when, if ever, our product candidates will generate revenue and cash flows.

Completion of research and development, preclinical testing and clinical trials may take many years. Estimates of completion periods for any of our major research and development projects are highly speculative and variable, and dependent on the nature of the disease indication, how common the disease is among the general populace, and the results of the research. For example, preclinical testing and clinical trials can often go on for an indeterminate period of time since the results of tests are continually monitored, with each test considered "complete" only when sufficient data has been accumulated to assess whether the next phases of clinical trials are warranted or whether the effort should be abandoned. Typically, Phase I clinical trials are expected to last between 12 and 24 months, Phase II clinical trials are expected to last between 24 and 36 months and Phase III clinical trials are expected to last between 24 and 60 months. The most significant time and costs associated with clinical development are the Phase III trials as they tend to be the longest and largest studies conducted during the drug development process.

In addition, many factors may delay the commencement and speed of completion of preclinical testing and clinical trials, including, but not limited to, the number of patients participating in the trial, the duration of patient follow-up required, the number of clinical sites at which the trials are conducted, and the length of time required to locate and enroll suitable patient subjects. The successful completion of our development programs and the successful development of our product candidates are highly uncertain and are subject to numerous challenges and risks. Therefore, we cannot presently estimate anticipated completion dates for any of our projects.

Due to the variability in the length of time necessary to develop a product candidate, the uncertainties related to the cost of projects and the need to obtain governmental approval for commercialization, accurate and meaningful estimates of the ultimate costs to bring our product candidates to market are not available. If our major research and development projects are delayed, then we can expect to incur additional costs in conducting our preclinical testing and clinical trials, and that it will be a longer period of time before we might achieve profitability from our operating activities. Accordingly, the timing of the potential market approvals for our existing product candidates belinostat, and CR011-vcMMAE, and future product development candidates, may have a significant impact on our capital requirements.

**General and administrative expenses.** The decrease in general and administrative expenses for the year ended December 31, 2007, as compared to the year ended December 31, 2006, was primarily a result of our restructuring activities through 2007 related to personnel reductions, a decrease in outsourcing of consultants and lower patent legal fees. Our general and administrative expenses are expected to decrease for the full year 2008 as compared to 2007 due to less personnel.

**Restructuring and related charges.** During June and September 2007, we underwent corporate restructurings to reduce operating costs and to focus resources on the advancement of our therapeutic pipeline through clinical development, resulting in full year 2007 restructuring charges of \$11.3 million. This amount includes an asset impairment charge of \$6.3 million (associated with the closure of BPS, on July 27, 2007), \$4.4 million related to employee separation costs paid in cash, \$0.3 million of non-cash employee separation costs and \$0.3 million of other asset write-offs. As of December 31, 2007, the majority of the assets included in the \$6.3 million asset impairment charge had been sold to various third parties. The cash requirements under the 2007 restructuring plans were \$4.4 million, of which \$1.6 million was paid prior to December 31, 2007.

**Interest income.** Interest income for the year ended December 31, 2007 decreased as compared to the year ended December 31, 2006 due to a reduction in our cash balance and investment portfolio. Our lower cash balance was due to: the repayment of \$66.2 million of our 6% convertible subordinated debentures which occurred upon their maturity in February 2007 and \$31.4 million of our 4% convertible subordinated debentures due 2011; cash used from operations of \$43.8 million, offset by the receipt of an aggregate of \$91.0 million from the sale of 454, the sale of our TopoTarget investment, and the sales of certain capital equipment. We earned an average yield of 4.3% during 2007 as compared to 3.9% in 2006. We anticipate interest income to decrease in 2008 compared to 2007, due to lower cash and investment balances caused by the utilization of cash and investment balances in the normal course of operations. We also expect the yields in our investment portfolio to slightly decrease during 2008.

**Interest expense.** Interest expense for the year ended December 31, 2007 decreased compared to the same period in 2006 primarily due to the \$66.2 million repayment of our 6% convertible subordinated debentures which occurred upon their maturity in February 2007, and the total 2007 repurchases of \$40.1 million of our 4% convertible subordinated debentures due 2011. We expect interest expense, including interest paid to debt holders as well as amortization of deferred financing costs, to decrease during 2008 as compared to 2007 due to the debt repurchases in the second half of 2007.

**Realized gain on sale of available-for-sale investments, net.** During 2007, we had a net gain on sale of "available-for sale" investments of \$0.7 million due to a \$1.0 million gain from the sale of our investment in TopoTarget, partially offset by a \$0.3 million loss on the sale of a debt investment.

**Gain on extinguishment of debt.** During 2007, we repurchased a total of \$40.1 of our 4% outstanding convertible subordinated debentures due February 2011, for a gain of \$8.4 million in "Gain on extinguishment of debt," which is net of the write-off of the ratable portion of unamortized deferred financial costs relating to the repurchased debt.

**Income tax benefit.** We recorded an income tax benefit of \$0.2 million during the year ended December 31, 2007 as a result of Connecticut legislation, which allows companies to obtain cash refunds from the State of Connecticut at a rate of 65% of their annual research and development expense credit, in exchange for forgoing carryforward of the research and development credit. For the years ended December 31, 2007 and 2006, the income tax benefit included adjustments resulting from the expiration of the State of Connecticut statute of limitations, as they relate to the Year 2002 and Year 2001 income tax benefit, respectively. We expect the 2008 income tax benefit to decrease in 2008 due to anticipated lower research and development expenditures next year.

**Loss from discontinued operations.** Due to the sale of our ownership in 454 in the second quarter of 2007, the results of 454's operations have been reclassified as discontinued operations for all periods presented. The income from discontinued operations for the year ended December 31, 2007 as compared to 2006 was due to the sale of 454 to Roche Diagnostics Operations Inc., or RDO, during the second quarter of 2007. During 2006, the cumulative losses applicable to the minority interest in subsidiary exceeded the minority interest in the equity capital of 454, and therefore all losses applicable to the minority interest for the year 2006 through the closing of the sale of 454 to RDO on May 25, 2007 were charged to us. Our net gain of \$75.4 million consists of

\$78.4 million gain on the sale of 454 offset by \$3.0 million loss from discontinued operations. This assumes we will collect our \$14.1 million of \$25 million held in escrow to provide for certain post-closing adjustments based on 454's net working capital and net debt on May 25, 2007, and to secure the indemnification rights of RDO and its affiliate.

#### **Year 2006 Compared to Year 2005**

*The following table sets forth a comparison of the components of our net loss for the years ended December 31, 2006 and 2005 (in millions):*

	<u>2006</u>	<u>2005</u>	<u>\$</u> <u>Change</u>	<u>%</u> <u>Change</u>
Collaboration revenue .....	\$ 2.3	\$ 4.8	\$ (2.5)	(52)%
Research and development expenses .....	44.0	57.5	(13.5)	(23)%
General and administrative expenses .....	13.6	12.2	1.4	11%
Restructuring and related charges .....	0.0	2.8	(2.8)	(100)%
Interest income .....	7.2	8.0	(0.8)	(10)%
Interest expense .....	9.4	11.7	(2.3)	(20)%
Gain on extinguishment of debt .....	0.0	1.8	(1.8)	(100)%
Income tax benefit .....	0.4	0.4	0.0	0%
Loss from continuing operations .....	(57.1)	(69.2)	(12.1)	(17)%
Income (loss) from discontinued operations .....	(2.7)	(4.0)	(1.3)	(33)%
Net loss .....	<u>\$(59.8)</u>	<u>\$(73.2)</u>		

**Collaboration revenue.** The decrease in our collaboration revenue for year ended December 31, 2006, as compared to the year ended December 31, 2005 was due to the completion of work under the Pharmacogenomics Agreement with Bayer during the second quarter of 2006.

**Research and development expenses.** Research and development expenses consist primarily of: contractual and manufacturing costs of our drug pipeline; salary and benefits; license fees and milestone payments; supplies and reagents; depreciation and amortization; and allocated facility costs. Our research and development efforts are concentrated on three major project areas: clinical candidates; preclinical drug candidates; and collaborations. We budget and monitor our operational research and development costs by expense category, rather than by project, because these costs often benefit multiple projects.

Below is a summary that reconciles our total research and development expenses for the years ended December 31, 2006 and 2005 by the major categories mentioned above (in millions):

	<u>2006</u>	<u>2005</u>	<u>\$</u> <u>Change</u>	<u>%</u> <u>Change</u>
Contractual and manufacturing costs .....	\$19.6	\$20.6	\$(1.0)	(5)%
Salary and benefits .....	11.0	11.0	0.0	0%
License fees and milestone payments .....	1.3	10.9	(9.6)	(88)%
Supplies and reagents .....	1.9	4.4	(2.5)	(59)%
Depreciation and amortization .....	2.8	3.3	(0.5)	(14)%
Allocated facility costs .....	7.4	7.3	0.1	5%
Total research and development expenses .....	<u>\$44.0</u>	<u>\$57.5</u>		

The decrease in research and development expenses for the year ended December 31, 2006, as compared to the year ended December 31, 2005, was primarily due to 2005 license fees and milestone payments of approximately \$10.9 million (primarily related to our collaborations with TopoTarget, Seattle Genetics and the

Bayer metabolic disorder collaboration), a decrease in contractual and manufacturing costs, a decrease in supplies and reagents, and a decrease in salary and benefits caused by a decrease in personnel, offset by a second quarter 2006 milestone payment (related to our collaboration with Seattle Genetics) and increased non-cash expenses in 2006 related to stock options and restricted stock recorded under SFAS 123R.

As soon as we advance a potential clinical candidate into clinical trials, we begin to track the direct research and development expenses associated with that potential clinical candidate. The following table shows the cumulative direct research and development expenses as of December 31, 2006, as well as the current direct research and development expenses for the years ended December 31, 2006 and 2005 which were incurred on or after we started conducting a Phase I clinical trial for a clinical candidate (*in millions*):

Therapeutic Area and Clinical Candidate	Class	Clinical Development Costs			Indication
		Cumulative as of December 31, 2006 (since commencement of Phase I trial)	Year Ended December 31, 2006	Year Ended December 31, 2005	
<b>Oncology</b>					
Belinostat .....	Small Molecule	\$30.4	\$11.4	\$16.4	Various Cancers
CR011-vcMMAE .....	Antibody-Drug Conjugate	\$ 4.4	\$ 4.4	—	Metastatic Melanoma
<b>Cancer Supportive Care</b>					
Velafermin .....	Protein	\$37.1	\$11.5	\$ 8.9	Oral Mucositis

**General and administrative expenses.** The increase in our general and administrative expenses for the year ended December 31, 2006, as compared to the year ended December 31, 2005, was primarily a result of an increase during 2006 in executive recruiting costs, consulting and legal fees incurred in connection with the strategic review of 454 and other financing efforts, and non-cash expenses for stock options and restricted stock recorded under SFAS 123R.

**Restructuring and related charges.** In 2006 there were no restructuring and related charges. In connection with the 2005 restructuring plan, we recorded a charge of \$2.8 million, including \$1.1 million related to employee separation costs, \$1.5 million of operating lease obligations and \$0.2 million of asset impairment costs. The cash requirements under the 2005 restructuring plan were \$2.5 million, of which \$1.0 million was paid prior to December 31, 2006.

**Interest income.** Interest income for year ended December 31, 2006 decreased as compared to 2005 primarily due to lower cash and investment balances, offset by higher yields on our investment portfolio. We earned an average yield of 3.9% during 2006 as compared to 2.8% in 2005.

**Interest expense.** Interest expense for the year ended December 31, 2006 decreased as compared to 2005 primarily due to the repurchases in 2005 of \$63.8 million of our 6% convertible subordinated debentures due 2007.

**Gain on extinguishment of debt.** In 2006, we did not repurchase any of our outstanding convertible subordinated debentures. During 2005, we repurchased \$63.8 million of our 6% convertible subordinated debentures due February 2007, for total consideration of \$61.5 million, plus accrued interest to the date of repurchase of \$1.2 million. As a result of these transactions we recorded a gain of \$1.8 million in "Gain on extinguishment of debt," which is net of the write-off of the ratable portion of unamortized deferred financing costs relating to the repurchased debt.

**Income tax benefit.** We recorded an income tax benefit of \$0.4 million during the year ended December 31, 2006 as a result of Connecticut legislation, which allows companies to obtain cash refunds from the State of Connecticut at a rate of 65% of their annual research and development expense credit, in exchange



for forgoing carryforward of the research and development credit. For the years ended December 31, 2006 and 2005, the income tax benefit included adjustments resulting from the expiration of the State of Connecticut statute of limitations, as they relate to the Year 2002 and Year 2001 income tax benefit, respectively.

**Loss from discontinued operations.** Due to the sale of our ownership in 454 in the second quarter of 2007, the results of 454's operations have been reclassified as discontinued operations for all periods presented.

### Liquidity and Capital Resources

Since our inception, we have financed our operations and met our capital expenditure requirements primarily through: private placements of equity securities; convertible subordinated debt offerings; public equity offerings; and revenues received under our collaborative research agreements. Since inception, we have not had any off-balance sheet arrangements. To date, inflation has not had a material effect on our business.

During 2007, we monetized several assets, including \$82 million from the sale of 454 to RDO, \$2.6 million from the sale of fixed assets as part of the corporate restructurings, and \$6.3 million from the sale of an investment in TopoTarget. Additionally, we repaid \$66.2 million of our 6% convertible subordinated debt at face value upon maturity and paid \$31.0 million to extinguish \$40.1 million of our 4% convertible subordinated debt in privately negotiated transactions.

We also underwent corporate restructurings to reduce operating costs and to focus resources on the advancement of our therapeutic pipeline through clinical development, resulting in a 2007 restructuring charge of \$11.3 million. We anticipate a reduction of our cash required for operating expenses in 2008.

**Cash and investments.** The following table depicts changes in the cash and investments for the years ended December 31, 2007 and 2006, using the direct method (*in millions*):

	<u>2007</u>	<u>2006</u>
Cash received from collaborators .....	\$ 0.9	\$ 0.4
Cash paid to suppliers and employees .....	(41.7)	(47.2)
Restructuring charges paid .....	(2.4)	(1.5)
Interest income received .....	5.5	7.2
Interest expense paid .....	(6.9)	(8.5)
Income tax benefit received .....	0.4	1.1
Cash paid to acquire property and equipment .....	(0.2)	(0.4)
Proceeds from sale of fixed assets .....	—	0.2
Proceeds from sale of held for sale assets .....	2.6	—
Proceeds from sale of long-term marketable securities .....	6.3	—
Proceeds from disposal of assets of discontinued operations .....	82.0	—
Cash received from employee stock option exercises .....	0.1	0.6
Repayment of convertible debt .....	(66.2)	—
Cash paid for extinguishment of debt .....	(31.0)	—
Net realized and unrealized gain on short-term investments and marketable securities .....	1.2	1.3
Net decrease in cash and investments .....	(49.4)	(46.8)
Cash and investments, beginning of period .....	164.4	211.2
Cash and investments, end of period .....	<u>\$115.0</u>	<u>\$164.4</u>

In accordance with our investment policy, we are utilizing the following investment objectives for cash and investments: (1) investment decisions are made with the expectation of minimum risk of principal loss, even with a modest penalty in yield; (2) appropriate cash balances and related short-term funds are maintained for immediate liquidity needs, and appropriate liquidity is available for medium-term cash needs; and (3) maximum yield is achieved.

**Future Liquidity.** We expect to continue to fund our operations into 2011 through a combination of the following sources: cash and investment balances; interest income; partnering our products; potential public securities offerings; and/or private strategic-driven transactions. We plan to use the proceeds from the assets monetized in 2007 to continue generating clinical trial results from our two late stage oncology programs, belinostat and CR011-vcMMAE, which may potentially enable us to bring one of these products into Phase III trials during 2008. During 2008 we plan to continue making substantial investments to advance our clinical drug pipeline. We do not anticipate any material capital expenditures in the near future. Accordingly, we foresee the following as significant uses of liquidity: contractual services related to clinical trials and manufacturing; salary and benefits; license fees; potential milestone payments; and payments of interest to the holders of our convertible subordinated debt due in 2011.

We will continue to evaluate options to repurchase or refinance a portion of our outstanding 4% convertible debentures that mature on February 15, 2011. Repurchases might occur through cash purchases and/or exchange for equity securities, in open market purchases, privately negotiated transactions or otherwise. Such repurchases or exchanges, if any, will depend on prevailing market conditions, our liquidity requirements, contractual restrictions and other factors. The amounts involved in any such transactions, individually or in the aggregate, may be material. We may use sources of liquidity for working capital, and for general corporate purposes and potentially for future acquisitions of complementary businesses or products or technologies. The amounts and timing of our actual expenditures will depend upon numerous factors, including the amount and extent of our acquisitions, our product development activities, and our investments in technology and the amount of cash generated by our operations. Actual expenditures may vary substantially from our estimates. Our failure to use sources of liquidity effectively could have a material adverse effect on our business, results of operations and financial condition.

We believe that our existing cash and investment balances and other sources of liquidity will be sufficient to meet our requirements into 2011. We consider our operating and capital expenditures to be crucial to our future success, and by continuing to make strategic investments in our clinical drug pipeline, we believe that we are building substantial value for our shareholders. The adequacy of our available funds to meet our future operating and capital requirements, including the repayment of the \$69.9 million of 4% convertible subordinated notes due February 15, 2011, will depend on many factors. These factors include: the number, breadth, progress and results of our research, product development and clinical programs; the costs and timing of obtaining regulatory approvals for any of our products; in-licensing and out-licensing of pharmaceutical products; costs incurred in enforcing and defending our patent claims; other intellectual property rights; and the extent to which RDO makes successful claims for indemnification under the Merger Agreement relating to the sale of 454. As of February 29, 2008 there were no claims made for indemnification.

While we will continue to explore alternative sources for financing our business activities, including the possibility of public securities offerings and/or private strategic-driven common stock offerings, we cannot be certain that in the future these sources of liquidity will be available when needed or that our actual cash requirements will not be greater than anticipated. In appropriate strategic situations, we may seek financial assistance from other sources, including contributions by others to joint ventures and other collaborative or licensing arrangements for the development and testing of products under development. However, should we be unable to obtain future financing either through the methods described above or through other means, we may be unable to meet the critical objective of our long-term business plan, which is to successfully develop and market pharmaceutical products, and may be unable to continue operations. This result could cause our shareholders to lose all or a substantial portion of their investment.

### **Contractual Obligations**

In the table below, we set forth our enforceable and legally binding obligations, along with future commitments related to all contracts that we are likely to continue, regardless of the fact that they are cancelable as of December 31, 2007.

Some of the amounts we include in this table under purchase commitments are based on management's estimates and assumptions about these obligations, including their duration, anticipated actions by third parties, progress of our clinical programs and other factors (in millions).

	Payments Due Year Ended December 31,					
	Total	2008	2009	2010	2011	Thereafter
Long-term debt obligations (1) .....	\$69.9	\$—	\$—	\$—	\$69.9	\$—
Interest on convertible subordinated debt (1) .....	9.8	2.8	2.8	2.8	1.4	—
Operating leases (2) .....	0.7	0.7	—	—	—	—
Purchase commitments (3) .....	8.3	7.7	0.5	—	—	—
<b>Total</b> .....	<b>\$88.6</b>	<b>\$11.2</b>	<b>\$ 3.3</b>	<b>\$ 2.8</b>	<b>\$71.3</b>	<b>\$—</b>

(1) Refer to Note 7 to our consolidated financial statements for additional discussion.

(2) Refer to Note 3 to our consolidated financial statements for additional discussion.

(3) Includes: commitments for costs associated with our clinical trial development and other supporting arrangements, which are subject to certain limitations and in certain circumstances cancellation clauses. Excludes amounts included on our balance sheet as liabilities and certain purchase obligations and potential future milestone payments as discussed below.

The expected timing of payment of the obligations discussed above is estimated based on current information. Timing of payments and actual amounts paid may be different depending on the time of receipt of goods or services or changes to agreed-upon amounts for some obligations.

For the purposes of this table, contractual obligations for purchase of goods or services are defined as agreements that are enforceable and legally binding on us and that specify all significant terms, including: fixed or minimum quantities to be purchased; fixed, minimum or variable price provisions; and the approximate timing of the transaction. Our purchases are based on current operating needs and are fulfilled by vendors within short time periods. We have unrecognized tax benefits of \$0.9 million at December 31, 2007. This amount is excluded from the table above as we are unable to make a reasonable estimate of the period of cash settlement with the respective taxing authority.

In addition, we have committed to make potential future milestone payments to third-parties as part of in-licensing and development programs. Payments under these agreements generally become due and payable only upon achievement of certain developmental, regulatory and/or commercial milestones. Because the achievement of these milestones is neither probable nor reasonably estimable, such contingencies have not been recorded on our consolidated balance sheet and are not included above.

### **Income Taxes**

As of December 31, 2007, we have tax net operating loss carryforwards available to reduce future federal and Connecticut taxable income, research and development tax credit carryforwards available to offset future federal and Connecticut income taxes. Utilization of the net operating loss and tax credit carryforwards may be limited due to changes in our ownership, as defined within Section 382 of the Internal Revenue Code (in thousands).

#### **Net Operating Loss Carryforwards**

Federal	Expire In	Connecticut	Expire In
\$532,514	2009 to 2028	\$469,485	2021 to 2028

#### **Research and Development Tax Credit Carryforwards**

Federal	Expire In	Connecticut	Expire In
\$ 20,184	2009 to 2028	\$ 14,233	2014 to 2023

## Recently Enacted Pronouncements

In September 2006, the FASB issued SFAS No. 157, "Fair Value Measurements," or SFAS 157. SFAS 157 defines fair value, establishes a framework for measuring fair value in accordance with generally accepted accounting principles, and expands disclosures about fair value measurements. On November 14, 2007, the FASB authorized its staff to draft a proposed FASB Staff Position that would partially defer the effective date of SFAS 157 for one year for non-financial assets and non-financial liabilities that are recognized or disclosed at fair value in the financial statements on a nonrecurring basis. SFAS 157 does not require any new fair value measurements; rather, it applies under other accounting pronouncements that require or permit fair value measurements. The provisions of SFAS 157 are to be applied prospectively as of the beginning of the fiscal year in which it is initially applied, with any transition adjustment recognized as a cumulative-effect adjustment to the opening balance of retained earnings. Notwithstanding the potential effective date deferral discussed above, SFAS 157 is effective for fiscal years beginning after November 15, 2007. We do not believe the adoption of SFAS 157 will have a material impact on our consolidated financial statements.

In June 2007, the FASB ratified the Emerging Issues Task Force, or EITF, consensus on Issue No. 07-3, "Accounting for Nonrefundable Advance Payments for Goods or Services to Be Used in Future Research and Development Activities", or EITF 07-3. EITF 07-3 requires that nonrefundable advance payments for goods or services that will be used or rendered for future research and development activities should be deferred and capitalized. Such amounts should be recognized as an expense as the related goods are delivered or the services are performed, or when the goods or services are no longer expected to be provided. EITF 07-3 is effective for fiscal years beginning after December 15, 2007, and interim periods within those fiscal years. We do not believe the adoption of EITF 07-3 will have a material impact on our consolidated financial statements.

In December 2007, the FASB ratified the EITF consensus on Issue No. 07-1, "Accounting for Collaborative Arrangements", or EITF 07-1. The EITF concluded that a collaborative arrangement is one in which the participants are actively involved and are exposed to significant risks and rewards that depend on the ultimate commercial success of the endeavor. Revenues and costs incurred with third parties in connection with collaborative arrangements would be presented gross or net based on the criteria in EITF 99-19, *Reporting Revenue Gross as a Principal versus Net as an Agent*, and other accounting literature. Payments to or from collaborators would be evaluated and presented based on the nature of the arrangement and its terms, the nature of the entity's business, and whether those payments are within the scope of other accounting literature. EITF 07-1 is effective for fiscal years beginning after December 15, 2008. We do not believe the adoption of EITF 07-1 will have a material impact on our consolidated financial statements.

In December 2007, the SEC issued Staff Accounting Bulletin No. 110, or SAB 110. SAB 110 expresses the views of the staff regarding the use of a "simplified" method, as discussed in SAB No. 107, or SAB 107, in developing an estimate of expected term of "plain vanilla" share options in accordance with Statement of Financial Accounting Standards No. 123 (revised 2004), *Share-Based Payment*. In particular, the staff indicated in SAB 107 that it will accept a company's election to use the simplified method, regardless of whether the company has sufficient information to make more refined estimates of expected term. At the time SAB 107 was issued, the staff believed that more detailed external information about employee exercise behavior (e.g., employee exercise patterns by industry and/or other categories of companies) would, over time, become readily available to companies. Therefore, the staff stated in SAB 107 that it would not expect a company to use the simplified method for share option grants after December 31, 2007. The staff understands that such detailed information about employee exercise behavior may not be widely available by December 31, 2007. Accordingly, the staff will continue to accept, under certain circumstances, the use of the simplified method beyond December 31, 2007. We are in the process of evaluating the provisions of SAB 110 and do not believe the adoption of SAB 110 will have a material impact on our consolidated financial statements.

**Item 7A. *Quantitative and Qualitative Disclosures About Market Risk***

Currently, we maintain approximately 15% of our cash, investments and restricted cash in financial instruments with original maturity dates of three months or less, 17% in financial instruments with original maturity dates of greater than three months and less than one year, 56% in financial instruments with original maturity dates of equal to or greater than one year and less than five years, and the remaining 12% in restricted cash which is currently being held in escrow to secure the indemnification rights of RDO and its affiliates from the sale of 454. These financial instruments are subject to interest rate risk and will decline in value if interest rates increase. These investments have no risk related to foreign currency exchange or commodity prices. We estimate that a change of 100 basis points in interest rates would result in a \$0.7 million decrease or increase in the fair value of our cash and investments.

We have 9% of our cash and investment securities in mortgage-backed securities. All of these mortgage backed securities are sponsored by the United States Federal Government and are rated AAA by Moody's. Additionally, we have 23% of asset backed securities which consist of auto, credit card and equipment loans all with AAA ratings by Moody's. The asset backed and mortgage backed securities have been priced by independent parties and trade at a net unrealized loss of \$0.02 million and the largest unrealized loss on any individual security is \$0.03 million. We believe that any individual unrealized loss as of December 31, 2007 represents only a temporary impairment, and no adjustment of carrying values is warranted at this time.

Our outstanding long-term liabilities as of December 31, 2007 include \$69.9 million of our 4% convertible subordinated notes due February 15, 2011, and the long-term portion of deferred revenue in the amount of \$1.1 million. As the notes bear interest at a fixed rate, our results of operations would not be affected by interest rate changes. Although future borrowings may bear interest at a floating rate, and would therefore be affected by interest rate changes, at this point we do not anticipate any significant future borrowings at floating interest rates, and therefore do not believe that a change of 100 basis points in interest rates would have a material effect on our financial condition.

Accordingly, we do not believe that there is any material market risk exposure with respect to derivative or other financial instruments that would require disclosure under this item.

As of December 31, 2007, the market value of our \$69.9 million 4% convertible subordinated notes due 2011, based on quoted market prices, was approximately \$50.1 million.

**Item 8. *Financial Statements and Supplementary Data***

**CURAGEN CORPORATION AND SUBSIDIARY**  
**CONSOLIDATED BALANCE SHEETS**  
(in thousands, except share data)

	December 31,	
	2007	2006
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$ 16,730	\$ 58,486
Restricted cash	14,533	—
Short-term investments	19,039	23,473
Marketable securities	64,675	82,434
Cash, restricted cash and investments	114,977	164,393
Accounts receivable	—	926
Income taxes receivable	419	543
Prepaid expenses	2,290	2,595
Assets held for sale	—	34,881
Total current assets	117,686	203,338
Property and equipment, net	479	12,215
Intangible and other assets, net	1,117	11,741
Total assets	<u>\$ 119,282</u>	<u>\$ 227,294</u>
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
Current liabilities:		
Accounts payable	\$ 254	\$ 320
Accrued expenses	3,140	3,289
Accrued payroll and related items	1,613	1,810
Interest payable	1,048	3,306
Current portion of deferred revenue	89	89
Other current liabilities	3,698	1,576
Current portion of convertible subordinated debt	—	66,228
Liabilities held for sale	—	30,735
Total current liabilities	9,842	107,353
Long-term liabilities:		
Convertible subordinated debt, net of current portion	69,890	110,000
Deferred revenue, net of current portion	1,085	1,174
Total long-term liabilities	70,975	111,174
Commitments and contingencies		
Stockholders' equity:		
Common Stock; \$.01 par value, issued and outstanding 58,074,127 shares at December 31, 2007, and 56,390,682 shares at December 31, 2006	581	564
Additional paid-in capital	525,481	518,827
Accumulated other comprehensive (loss) income	(23)	2,348
Accumulated deficit	(487,574)	(512,972)
Total stockholders' equity	38,465	8,767
Total liabilities and stockholders' equity	<u>\$ 119,282</u>	<u>\$ 227,294</u>

See accompanying notes to consolidated financial statements

**CURAGEN CORPORATION AND SUBSIDIARY**  
**CONSOLIDATED STATEMENTS OF OPERATIONS**  
(in thousands, except per share data)

	Year Ended December 31,		
	2007	2006	2005
Revenue			
Collaboration revenue	\$ 88	\$ 2,298	\$ 4,825
Total revenue	<u>88</u>	<u>2,298</u>	<u>4,825</u>
Operating expenses			
Research and development expenses	36,778	44,009	57,461
General and administrative expenses	11,658	13,648	12,225
Restructuring charges	11,274	—	2,817
Total operating expenses	<u>59,710</u>	<u>57,657</u>	<u>72,503</u>
Loss from operations	(59,622)	(55,359)	(67,678)
Interest income	5,534	7,170	8,043
Interest expense	(5,167)	(9,351)	(11,701)
Realized gain on sale of available-for-sale investments, net	665	—	—
Gain on extinguishment of debt	8,442	—	1,766
Loss from continuing operations before income tax benefit	(50,148)	(57,540)	(69,571)
Income tax benefit	<u>185</u>	<u>376</u>	<u>403</u>
Loss from continuing operations	<u>(49,963)</u>	<u>(57,165)</u>	<u>(69,168)</u>
Discontinued Operations			
Loss from discontinued operations	(2,991)	(2,675)	(4,076)
Gain on sale of subsidiary	78,352	—	—
Income (loss) from discontinued operations	<u>75,361</u>	<u>(2,675)</u>	<u>(4,076)</u>
Net income (loss)	<u>\$ 25,398</u>	<u>(\$59,839)</u>	<u>(\$73,244)</u>
Basic and diluted loss per share from continuing operations	\$ (0.89)	\$ (1.04)	\$ (1.33)
Basic and diluted income (loss) per share from discontinued operations	\$ 1.34	\$ (0.05)	\$ (0.08)
Basic and diluted net income (loss) per share	<u>\$ 0.45</u>	<u>\$ (1.09)</u>	<u>\$ (1.41)</u>
Weighted average number of shares used in computing basic and diluted net income (loss) per share	<u>55,853</u>	<u>54,896</u>	<u>51,991</u>

See accompanying notes to consolidated financial statements

**CURAGEN CORPORATION AND SUBSIDIARY**  
**CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY**  
(in thousands, except share data)

	Number of Shares	Common Stock	Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Unamortized Stock-Based Compensation	Total	Total Comprehensive Income (Loss)
January 1, 2005	50,646,538	\$506	\$489,725	(\$1,085)	(\$2,331)	\$106,926	
Net loss	—	—	—	—	—	(73,244)	(\$73,244)
Unrealized losses on available-for-sale securities, net of reclassification adjustment (see disclosure below)	—	—	—	(1,700)	—	(1,700)	(1,700)
Comprehensive loss	—	—	—	—	—	—	(\$74,944)
Issuance of common stock, net of stock issuance costs	4,000,000	40	20,808	—	—	20,848	
Issuance of restricted stock	767,875	8	3,115	—	(3,115)	8	
Retirement of restricted stock	(78,200)	—	(488)	—	488	—	
Amortization and forfeitures of stock-based compensation	—	—	—	—	1,942	1,942	
Employee stock option activity	181,832	1	617	—	—	618	
Non-employee stock option activity	30,000	—	659	—	—	659	
Stock-based 401(k) plan employer match	94,035	1	426	—	—	427	
December 31, 2005	55,642,080	\$556	\$514,862	(\$2,785)	(\$3,016)	\$ 56,484	(\$59,839)
Net loss	—	—	—	—	—	(59,839)	
Unrealized gains on available-for-sale securities, net of reclassification adjustment (see disclosure below)	—	—	—	5,133	—	5,133	5,133
Comprehensive loss	—	—	—	—	—	—	(\$54,706)
Issuance of restricted stock	455,000	5	—	—	—	5	
Retirement of restricted stock	(31,625)	—	—	—	—	—	
Reversal of unamortized stock-based compensation	—	—	(3,016)	—	3,016	—	
Employee stock option activity	25,049	—	5,989	—	—	5,989	
Non-employee stock option activity	216,000	2	657	—	—	659	
Stock-based 401(k) plan employer match	84,178	1	335	—	—	336	
December 31, 2006	56,390,682	\$564	\$518,827	\$ 2,348	\$ 0	\$ 8,767	\$ 25,398
Net income	—	—	—	—	—	25,398	
Unrealized losses on available-for-sale securities, net of reclassification adjustment (see disclosure below)	—	—	—	(2,371)	—	(2,371)	(2,371)
Comprehensive income	—	—	—	—	—	—	\$ 23,027
Issuance of restricted stock	1,537,020	15	—	—	—	15	
Retirement of restricted stock	(42,230)	—	—	—	—	—	
Employee stock option activity	19,400	1	6,521	—	—	6,522	
Non-employee stock option activity	—	—	(219)	—	—	(219)	
Stock-based 401(k) plan employer match	169,255	1	352	—	—	353	
December 31, 2007	58,074,127	\$581	\$525,481	(\$23)	\$ 0	\$ 38,465	

See accompanying notes to consolidated financial statements



**CURAGEN CORPORATION AND SUBSIDIARY**

**CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY—(Continued)**  
(in thousands, except share data)

	Number of Common Shares	Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Unamortized Stock-Based Compensation	Total Comprehensive Income (Loss)
<b>Disclosure of 2005 comprehensive loss reclassification</b>						
<b>adjustment:</b>						
Unrealized holding losses on available-for-sale securities arising during period						(\$1,896)
Reclassification adjustment for losses included in net loss						196
Unrealized losses on short-term investments and marketable securities, net of reclassification adjustment						(\$1,700)
<b>Disclosure of 2006 comprehensive loss reclassification</b>						
<b>adjustment:</b>						
Unrealized holding gains on available-for-sale securities arising during period						\$ 4,845
Reclassification adjustment for losses included in net loss						288
Unrealized gains on short-term investments and marketable securities, net of reclassification adjustment						\$ 5,133
<b>Disclosure of 2007 comprehensive loss reclassification</b>						
<b>adjustment:</b>						
Unrealized holding losses on available-for-sale securities arising during period						(\$1,706)
Reclassification adjustment for gains included in net income						(665)
Unrealized losses on short-term investments and marketable securities, net of reclassification adjustment						(\$2,371)

See accompanying notes to consolidated financial statements

**CURAGEN CORPORATION AND SUBSIDIARY**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**  
(in thousands)

	Year Ended December 31,		
	2007	2006	2005
Cash flows from operating activities:			
Net income (loss)	\$ 25,398	(\$ 59,839)	(\$ 73,244)
(Income) loss from discontinued operations	(75,361)	2,675	4,076
Adjustments to reconcile net income (loss) to net cash used in operating activities:			
Deferred revenue, net of current portion	(89)	1,174	—
Depreciation and amortization	3,493	7,343	6,291
Asset impairment expense	6,322	—	188
Non-monetary compensation	3,539	5,345	2,572
Stock-based 401(k) employer plan match	353	335	427
Non-cash interest income	429	896	1,477
Non-cash interest income—restricted cash	(403)	—	—
Gain on extinguishment of debt	(8,442)	—	(1,766)
Net gain on sale of available-for-sale investments	(665)	—	—
Changes in assets and liabilities:			
Accrued interest receivable	357	267	505
Income taxes receivable	124	166	120
Accounts receivable	926	(871)	(13)
Prepaid expenses	494	(836)	344
Other assets	279	(139)	(222)
Accounts payable	(57)	(755)	(208)
Accrued expenses	(149)	356	191
Accrued payroll and related items	(197)	629	(599)
Interest payable	(2,257)	—	(1,594)
Current portion of deferred revenue	—	(3,121)	(1,006)
Other current liabilities	2,122	(914)	1,191
Net cash used in operating activities	(43,784)	(47,289)	(60,854)
Cash flows from investing activities:			
Acquisitions of property and equipment	(188)	(411)	(8,017)
Proceeds from sale of fixed assets	29	180	3,605
Payments for intangible assets	—	(7)	(10)
Gross purchases of short-term investments	(18,961)	(29,967)	(24,774)
Gross sales of short-term investments	7,123	4,930	13,333
Gross maturities of short-term investments	15,900	14,527	82,410
Gross purchases of marketable securities	(19,938)	(11,710)	(86,749)
Gross sales of marketable securities	21,389	52,925	56,412
Gross maturities of marketable securities	17,090	57,025	59,792
Proceeds from sale of held for sale assets	2,610	—	—
Proceeds from sale of long-term marketable securities	6,260	—	—
Net cash provided by investing activities	31,314	87,492	96,002
Cash flows from financing activities:			
Proceeds from exercise of stock options	72	586	594
Proceeds from issuance of common stock	—	—	22,000
Payments of stock issuance costs	—	—	(1,153)
Repayment of convertible debt	(66,228)	—	—
Payment for extinguishment of debt	(31,024)	—	(61,540)
Net cash (used in) provided by financing activities	(97,180)	586	(40,099)
Cash flows from discontinued operations:			
Net operating cash flows (used in) provided by discontinued operations	(379)	(7,870)	9,770
Net investing cash flows provided by (used in) discontinued operations	67,819	8,480	(7,996)
Net financing cash flows provided by discontinued operations	23	494	86
Net cash provided by discontinued operations	67,463	1,104	1,860
Plus decrease (increase) in cash and cash equivalents of discontinued operations, net of sale proceeds	431	(1,104)	(1,860)
Net (decrease) increase in cash and cash equivalents	(41,756)	40,789	(4,951)
Cash and cash equivalents, beginning of year	58,486	17,697	22,648
Cash and cash equivalents, end of year	\$ 16,730	\$ 58,486	\$ 17,697
Supplemental cash flow information:			
Interest paid	\$ 6,752	\$ 8,487	\$ 12,250
Income tax benefit payments received	\$ 407	\$ 1,114	\$ 523
Acquisition/construction of property and equipment, unpaid at end of period	\$ —	\$ 9	\$ 62

See accompanying notes to consolidated financial statements

**CURAGEN CORPORATION AND SUBSIDIARY**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**1. Organization and Summary of Significant Accounting Policies**

**Organization**—CuraGen Corporation (“CuraGen” or the “Company”), is a Connecticut-based biopharmaceutical development company dedicated to improving the lives of patients by developing novel therapeutics for the treatment of cancer.

In May 2007, the sale of 454 Life Sciences Corporation, our previously majority-owned subsidiary (“454”), to Roche Diagnostics Operations, Inc. (“RDO”), was completed. See Notes 12, 13 and 14 for further details.

All dollar amounts are shown in thousands, except share and per share data.

As shown in the accompanying financial statements, the Company has incurred significant recurring losses and negative cash flows from operations, and expects to continue to incur such losses and negative cash flows in the future. In the near future, the Company’s principal sources of liquidity will be its cash and investment balances, interest income, potential public securities offerings and/or private strategic-driven transactions. However, should these sources of liquidity not be available when needed, or should the Company’s actual cash requirements be greater than anticipated, the Company may be unable to meet the critical objective of its long-term business plan, which is to successfully develop and market pharmaceutical products, and it may be unable to continue operations. The Company’s failure to use sources of liquidity effectively could have a material adverse effect on its business, results of operations and financial condition.

The Company is currently evaluating several measures to strengthen its cash position and help meet its payment obligations, including plans to provide additional sources of liquidity in the future, which include but are not limited to strategic options with respect to collaborative or licensing arrangements for the development and testing of products under development. In addition, the Company continues to carefully manage the amounts and timing of its actual expenditures for its product development activities. As a result of these above actions, the Company believes that its existing cash balances will be sufficient to fund the Company’s operations into 2011. However, there can be no assurance that these measures will be successful to the extent necessary for the Company to remain current on its obligations, and therefore, it may be unable to meet the critical objective of its long-term business plan, which is to successfully develop and market pharmaceutical products, and it may be unable to continue operations.

**Use of Estimates**—The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ materially from those estimates.

**Cash and Investments**—The Company considers investments readily convertible into cash, with an original maturity of three months or less to be cash equivalents. Investments with an original maturity greater than three months but less than one year are considered short-term investments. Investments with an original maturity equal to or greater than one year are designated as marketable securities. Both short-term investments and marketable securities are classified as available-for-sale securities, and are carried at fair value with the unrealized gains and losses reported in stockholders’ equity under the caption “Accumulated other comprehensive income (loss).”

The Company periodically reviews its investment portfolio based on criteria established in Financial Accounting Standards No. 115 “Accounting for Certain Investments in Debt and Equity Securities” to determine if there is an impairment that is other than temporary. In testing for impairment, the Company considers, among other factors, the length of time and the extent of a security’s unrealized loss, the financial condition and near

**CURAGEN CORPORATION AND SUBSIDIARY**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

term prospects of the issuer, economic forecasts, market or industry trends and the Company's ability and intent to hold securities to maturity. Interest on debt securities, amortization of premiums, accretion of discounts and realized investment gains and losses are included in interest income. The cost of securities sold is based on the specific identification method.

**Property and Equipment**—Property and equipment are recorded at cost. Additions, renewals and betterments that significantly extend the life of an asset are capitalized. Minor replacements, maintenance and repairs are charged to operations as incurred. Equipment is depreciated over the estimated useful lives of the related assets, ranging from three to five years, using the straight-line method. Leasehold improvements are amortized over the shorter of the estimated lives or the remaining terms of the leases, using the straight-line method. When assets are retired or otherwise disposed of, the assets and related accumulated depreciation or amortization are eliminated from the accounts and any resulting gain or loss is reflected in the consolidated statements of operations.

**Impairment of Long-Lived Assets**—The Financial Accounting Standards Board ("FASB") issued Statement of Financial Accounting Standards No. 144, "Accounting for the Impairment or Disposal of Long Lived Assets," which establishes a single accounting model for long lived assets to be held for use. The Company regularly evaluates the recoverability of the net carrying value of its property, and intangible assets, when an indicator of impairment is present by comparing the carrying values to the estimated future undiscounted cash flows. An impairment loss is recognized when the carrying value of the long-lived asset exceeds its fair value. The impairment write-down is the difference between the carrying amount and the fair value of these long-lived assets. A loss on impairment is recognized through a charge to earnings.

**Licensing Fees**—Licensing fees are paid for the right to market and sell certain technologies in our platform and licensing fees for various purposes. Perpetual licenses taken on potential therapeutic products for which there is no current indication as to whether or not there is a future commercial market for sale, are expensed when incurred. Licenses acquired for which there is a specific period of benefit are amortized by the Company over that period. The costs of non-perpetual licenses, which are included in Intangible and other assets, net, are amortized over the various lives of the licenses ranging from one to ten years.

**Financing Costs**—The Company includes deferred financing costs incurred in connection with the issuance of convertible subordinated debt in Intangible and other assets, net and amortizes these costs over the life of the debt. The amortization expense is included in interest expense. When debt is repurchased, the Company writes off the related unamortized deferred financing costs and nets the write off with any gain or loss recognized on the extinguishment of the debt.

Accumulated amortization was \$1,341 and \$3,796, respectively, as of December 31, 2007 and 2006. Amortization expense was \$534, \$865 and \$1,049, respectively, for the years ended December 31, 2007, 2006 and 2005.

**Patent Application Costs**—The Company seeks patent protection on processes and products in various countries. All patent related costs are expensed to general and administrative expenses as incurred, as recoverability of such expenditures is uncertain.

**Revenue Recognition**—The Company recognizes revenue when all four criteria are met: (1) persuasive evidence that an arrangement exists; (2) delivery of the products has occurred or services have been rendered; (3) the selling price is fixed or determinable; and (4) the collectibility is reasonably assured, in accordance with Securities and Exchange Commission Staff Accounting Bulletin No. 104, "Revenue Recognition," which set forth guidelines for the timing of revenue recognition based upon factors such as passage of title, installation, payment and customer acceptance.

**CURAGEN CORPORATION AND SUBSIDIARY**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

*Collaboration Revenue*

During 2007, collaboration revenue was generated from the grant of exclusive worldwide rights from TopoTarget to a third party for a preclinical HDAC inhibitor, and the Company's agreement with TopoTarget in which the Company receives 50% of initial payments received by TopoTarget from the third party. Under this agreement, the Company currently amortizes the \$1,277 non-refundable payment received on a straight-line basis commencing in November 2006, the month the agreement was signed, through April 2022, the date the first original patent will expire in the United States. However, in the event that the third party terminates its license agreement with TopoTarget, all unrecognized revenue will be recognized upon termination. In January 2008, TopoTarget was informed by the third party that it was terminating the development of the preclinical compound in 2008 and as such the remaining unrecognized revenue as of December 31, 2007 of \$1,174 is expected to be recognized in 2008.

Collaboration revenue during 2006 and 2005 was generated primarily under our Pharmacogenomics Agreement with Bayer (the "Bayer Agreement"). Payments under the terms of the Bayer agreement consisted of non-refundable fixed quarterly payments received in advance. The Bayer Agreement was completed in 2006. The non-refundable fixed quarterly payments received in advance under the Bayer Agreement related to the Company's future performance of services and were deferred and recognized as revenue when the future performance occurred, based upon the satisfaction of defined metrics of completion, as outlined in the Bayer Agreement, which included proportional performance and project specific deliverables.

**Accrued Expenses**—The Company reviews open contracts and purchase orders, communicates with applicable personnel to identify services that have been performed on the Company's behalf and estimates the level of service performed and the associated costs incurred for the service when the Company has not yet been invoiced or otherwise notified of the actual costs. The majority of the Company's service providers invoice monthly in arrears for services performed. The Company makes estimates of its accrued expenses as of each balance sheet date in its financial statements based on facts and circumstances known. The Company also periodically confirms the accuracy of its estimates with the service providers and makes adjustments if necessary.

**Prepaid Expenses**—The Company has established a method for monitoring and accounting for prepaid expenses. Prepaid expenses are those that arise when cash is disbursed and a portion of the associated benefit of the disbursement is for a future period. An asset is recorded on the books for the total invoice amount when paid and is amortized ratably over the coverage period.

**Research and Development Expenses**—Research and development costs are charged to research and development expenses as incurred. Such costs primarily include clinical trial related costs such as contractual services and manufacturing costs, salary and benefits, perpetual license fees and milestone payments, supplies and reagents, depreciation of lab equipment and allocated facility costs. Amounts relating to protein (or compound, or drug) manufacturing activities, for which the physical drug products will be utilized in research and development, are expensed as incurred, as there is no current indication that there is a future commercial market for sale of any successful drug development from these therapeutics.

**Stock-Based Compensation**—The Company adopted Statement of Financial Accounting Standards No. 123 (revised 2004), "Share-Based Payment" ("SFAS 123R"), effective January 1, 2006. SFAS 123R requires recognition of the fair value of stock-based compensation in net income (loss). Previously Statement of Financial Accounting Standards No. 123, "Accounting for Stock-Based Compensation" ("SFAS 123") required only expanded disclosures of stock-based compensation arrangements with employees, and encouraged (but did not require) compensation cost to be measured based on the fair value of the equity instruments awarded. Companies were permitted to continue to apply Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued

**CURAGEN CORPORATION AND SUBSIDIARY**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

to Employees" ("APB 25") for equity instruments awarded to employees, which recognized compensation cost based on the intrinsic value of the equity instruments awarded. The Company continued to apply APB 25 for purposes of its stock-based compensation awards to employees through December 31, 2005, and accordingly recorded no compensation expense for option grants unless the option grants had an exercise price less than the fair market value of the underlying stock at the date of grant.

The Company has one active stock-based compensation plan, the 2007 Stock Incentive Plan ("2007 Stock Plan") and two inactive stock-based compensation plans, the 1997 Employee, Director and Consultant Stock Plan ("1997 Stock Plan") and the 1993 Stock Option and Incentive Award Plan ("1993 Stock Plan").

The Company transitioned to fair-value-based accounting for stock-based compensation under SFAS 123R using the modified version of the prospective application method ("modified prospective application method"). Under the modified prospective method, restatement of prior financial statements is not required; and, SFAS 123R applies to new awards and to awards modified, repurchased or cancelled on or after January 1, 2006. Additionally, compensation cost for the portion of awards that are outstanding as of January 1, 2006, for which the requisite service has not been rendered (generally referring to unvested awards), is recognized as the remaining requisite service is rendered after January 1, 2006.

Compensation cost for purposes of the pro forma disclosures required under SFAS 123 prior to January 1, 2006 was calculated on a straight-line basis over the requisite service period for each separately vesting portion of an award as if the awards were in substance, multiple awards, which resulted in an acceleration of compensation cost. Effective with the adoption of SFAS 123R, the Company records compensation cost for new awards on a straight-line basis over the requisite service period for the entire award.

In addition, the Company estimated forfeitures when calculating compensation expense for SFAS 123 pro forma disclosures, and adjusted the estimate of forfeitures over the requisite service period based on the extent to which actual forfeitures differed from such estimates. Changes in estimated forfeitures were recognized through a cumulative true-up adjustment in the period of change and also impacted the amount of compensation expense to be recognized in future periods. The Company continued to use this methodology after the adoption of SFAS 123R. With respect to accounting for the compensation expense related to restricted stock awards, the Company previously recognized forfeitures as they occurred. However, effective with the adoption of SFAS 123R, the Company now estimates forfeitures for purposes of calculating compensation expense related to restricted stock. The impact on previously reported compensation expense related to restricted stock where forfeitures were recognized as incurred was not material and was recorded in operating expenses.

Prior to the adoption of SFAS 123R, the Company used the Black-Scholes option valuation model to estimate the fair value of stock options granted to employees for purposes of SFAS 123 disclosure. Upon the adoption of SFAS 123R, the Company continues to use the Black-Scholes option valuation model for purposes of valuing all new awards and awards modified, repurchased or cancelled on or after January 1, 2006.

Historically, the Company used the following methods to determine the factors input into the Black-Scholes model: historical volatility is used to determine the expected stock price volatility factor; risk-free interest rates are based on the U.S. Treasury yield curve in effect at the time of grant, for the period corresponding to the approximate expected term of the options; and the expected term of the options has been calculated using CuraGen's historical exercise patterns to estimate future exercise patterns. Effective with the adoption of SFAS 123R, the Company continues to utilize the same methodology for purposes of estimating the expected stock price volatility and the risk-free interest rates, however, for purposes of estimating the expected term, the Company uses the simplified approach as outlined in Staff Accounting Bulletin No. 107 (Topic 14) ("SAB 107"), whereby the expected term is equal to the average of the vesting term and the contractual term.

**CURAGEN CORPORATION AND SUBSIDIARY**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

For purposes of restricted stock grants, the grant date fair value is calculated as the fair market value of the stock on the date of grant less the purchase price of the restricted stock paid by the grantee, which is equal to the \$.01 par value of the stock. The Company recognizes stock-based compensation expense for restricted stock grants over the requisite service period of the individual grants, which equals the vesting period. Generally, restricted stock grants to employees fully vest between two and three years from the grant date.

SFAS 123R requires the presentation of pro forma information for periods prior to the adoption as if the Company had accounted for all stock-based compensation under the fair value method. For purposes of pro forma disclosure, the estimated fair value of the options at the date of grant is amortized to expense over the requisite service period, which equals the vesting period. Employee stock-based compensation shown below includes the amortization of restricted stock compensation expense recorded in the consolidated statements of operations during the periods presented. The following table illustrates the effect on net loss from continuing operations and earnings per share as if the fair value recognition provisions had been applied to the Company's employee stock-based compensation.

	<u>Year Ended December 31, 2005</u>
Loss from continuing operations, as reported .....	(\$69,168)
Employee stock-based compensation expense included in loss from continuing operations .....	1,943
Total employee stock-based compensation expense determined under the fair-value based method for all awards .....	<u>(4,815)</u>
Pro forma loss from continuing operations .....	<u>(\$72,040)</u>
Basic and diluted loss per share from continuing operations:	
As reported .....	(\$ 1.33)
Pro forma .....	(\$ 1.39)

Upon adoption of SFAS 123R, the Company recognizes the compensation expense associated with stock options granted to employees after December 31, 2005, and the unvested portion of previously granted employee stock option awards that were outstanding as of December 31, 2005, in the consolidated statements of operations. During the years ended December 31, 2007 and 2006, the Company recognized compensation expense in total operating expenses on the consolidated statements of operations with respect to employee stock options and restricted stock grants as follows:

	<u>Year Ended December 31, 2007</u>	<u>Year Ended December 31, 2006</u>
Compensation expense with respect to employee stock options .....	\$1,167	\$2,588
Compensation expense with respect to restricted stock grants .....	\$2,552	\$2,615

Upon the adoption of SFAS 123R on January 1, 2006, the Company reversed the \$3,016 balance in the unamortized stock-based compensation account to additional paid-in-capital in accordance with SFAS 123R. Due to the Company's net loss from continuing operations position, no tax benefit was recorded during the period.

**CURAGEN CORPORATION AND SUBSIDIARY**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

For the years ended December 31, 2007 and 2006, the adoption of SFAS 123R had the effect of increasing the loss from continuing operations and basic and diluted loss per share from continuing operations, over amounts that would have been reported using the intrinsic value method under APB 25, as follows:

	<u>Year Ended December 31, 2007</u>	<u>Year Ended December 31, 2006</u>
Increase in loss from continuing operations .....	\$1,167	\$2,588
Increase in basic and diluted loss per share from continuing operations .....	\$ 0.02	\$ 0.05

The fair value of options granted during the years ended December 31, 2007, 2006 and 2005 were estimated as of the grant date using the Black-Scholes option valuation model with the following weighted average assumptions:

	<u>Year Ended December 31,</u>		
	<u>2007</u>	<u>2006</u>	<u>2005</u>
Expected stock price volatility .....	66%	79%	81%
Expected risk-free interest rate .....	4.80%	4.28%	3.54%
Expected option term in years .....	6.25	6.25	4.60
Expected dividend yield .....	0%	0%	0%

The approximate weighted-average grant date fair values using the Black-Scholes option valuation model of all stock options granted during the years ended December 31, 2007, 2006 and 2005 were \$1.27, \$2.78 and \$3.50, respectively.

As of December 31, 2007 there was \$1,581 of total unrecognized compensation expense related to unvested stock option grants under the 2007 Stock Plan and 1997 Stock Plan. This expense is expected to be recognized over a weighted-average period of 1.72 years.

As of December 31, 2007, there was \$1,363 of total unrecognized compensation expense related to unvested restricted stock issuances under the 2007 Stock Plan and 1997 Stock Plan. This expense is expected to be recognized over a weighted-average period of 1.14 years.

As a result of the sale of 454 discussed in Note 13, 454's operating results are being reported as discontinued operations for the period January 1, 2007 to May 25, 2007 and the years ended December 31, 2006 and 2005. During the period January 1, 2007 to May 25, 2007 and the year ended December 31, 2006, 454 recognized compensation expense of \$2,706 and \$678, respectively, with respect to employee stock option awards which is included in income (loss) from discontinued operations. During the year ended December 31, 2005, 454 recognized \$586 for total employee stock-based compensation expense determined under the fair-value based method for all awards.

**Comprehensive Income (Loss)**—Statement of Financial Accounting Standards No. 130, "Reporting Comprehensive Income" ("SFAS 130"), requires reporting and displaying of comprehensive income (loss) and its components. In accordance with SFAS 130, the accumulated balance of other comprehensive income (loss) is disclosed as a separate component of stockholders' equity and is comprised of unrealized gains and losses on short-term investments and marketable securities.

**Income Taxes**—Income taxes are provided for as required under Statement of Financial Accounting Standards No. 109, "Accounting for Income Taxes." This statement requires the use of the asset and liability method in determining the tax effect of the "temporary differences" between the tax basis of assets and liabilities and their financial reporting amounts (see Note 15 for the adoption of FIN 48 "Accounting for Uncertainties in Income Taxes").



**CURAGEN CORPORATION AND SUBSIDIARY**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

**Income (Loss) Per Share**—Basic income (loss) per share is computed by dividing net income (loss) by the weighted average number of shares of common stock outstanding for the period, excluding unvested restricted stock. Diluted income (loss) per share reflects the potential dilution that could occur if options or other contracts to issue common stock were exercised or converted into common stock. Convertible subordinated debt, stock options granted but not yet exercised under CuraGen's stock option plans and unvested restricted stock are anti-dilutive and therefore not considered for the diluted income (loss) per share calculations. Anti-dilutive potential common shares, consisting of convertible subordinated debt, outstanding stock options and unvested restricted stock were 13,371,135, 19,725,238, and 19,781,324 for the years ended December 31, 2007, 2006 and 2005, respectively.

**Fair Value of Financial Instruments**—Statement of Financial Accounting Standards No. 107, "Disclosures about Fair Value of Financial Instruments" requires the disclosure of fair value information for certain assets and liabilities, whether or not recorded in the balance sheets, for which it is practical to estimate that value. The Company has the following financial instruments: cash and cash equivalents, receivables, accounts payable, accrued expenses and certain other liabilities. The Company considers the carrying amount of these items to approximate fair value due to their short-term nature. In addition, the Company has short-term investments and marketable securities which are recorded at fair value (see Note 8). The Company also has convertible subordinated debt (see Note 7).

**Recently Enacted Pronouncements**—In September 2006, the FASB issued Statement SFAS No. 157, "Fair Value Measurements" ("SFAS 157"). SFAS 157 defines fair value, establishes a framework for measuring fair value in accordance with generally accepted accounting principles, and expands disclosures about fair value measurements. On November 14, 2007, the FASB authorized its staff to draft a proposed FASB Staff Position that would partially defer the effective date of SFAS 157 for one year for non-financial assets and non-financial liabilities that are recognized or disclosed at fair value in the financial statements on a nonrecurring basis. SFAS No. 157 does not require any new fair value measurements; rather, it applies under other accounting pronouncements that require or permit fair value measurements. The provisions of SFAS 157 are to be applied prospectively as of the beginning of the fiscal year in which it is initially applied, with any transition adjustment recognized as a cumulative-effect adjustment to the opening balance of retained earnings. Notwithstanding the potential effective date deferral discussed above, SFAS 157 is effective for fiscal years beginning after November 15, 2007. The Company does not believe the adoption of SFAS 157 will have a material impact on its consolidated financial statements.

In June 2007, the FASB ratified the Emerging Issues Task Force ("EITF") consensus on Issue No. 07-3, "Accounting for Nonrefundable Advance Payments for Goods or Services to Be Used in Future Research and Development Activities" ("EITF 07-3"). EITF 07-3 requires that nonrefundable advance payments for goods or services that will be used or rendered for future research and development activities should be deferred and capitalized. Such amounts should be recognized as an expense as the related goods are delivered or the services are performed, or when the goods or services are no longer expected to be provided. EITF 07-3 is effective for fiscal years beginning after December 15, 2007, and interim periods within those fiscal years. The Company does not believe the adoption of EITF 07-3 will have a material impact on its consolidated financial statements.

In December 2007, the FASB ratified the EITF consensus on Issue No. 07-1, "Accounting for Collaborative Arrangements" ("EITF 07-1"). The EITF concluded that a collaborative arrangement is one in which the participants are actively involved and are exposed to significant risks and rewards that depend on the ultimate commercial success of the endeavor. Revenues and costs incurred with third parties in connection with collaborative arrangements would be presented gross or net based on the criteria in EITF 99-19, *Reporting Revenue Gross as a Principal versus Net as an Agent*, and other accounting literature. Payments to or from

## CURAGEN CORPORATION AND SUBSIDIARY

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

collaborators would be evaluated and presented based on the nature of the arrangement and its terms, the nature of the entity's business, and whether those payments are within the scope of other accounting literature EITF 07-1 is effective for fiscal years beginning after December 15, 2008. The Company does not believe the adoption of EITF 07-1 will have a material impact on its consolidated financial statements.

In December 2007, the SEC issued Staff Accounting Bulletin No. 110 ("SAB 110"). SAB 110 expresses the views of the staff regarding the use of a "simplified" method, as discussed in SAB No. 107 ("SAB 107"), in developing an estimate of expected term of "plain vanilla" share options in accordance with Statement of Financial Accounting Standards No. 123 (revised 2004), Share-Based Payment. In particular, the staff indicated in SAB 107 that it will accept a company's election to use the simplified method, regardless of whether the company has sufficient information to make more refined estimates of expected term. At the time SAB 107 was issued, the staff believed that more detailed external information about employee exercise behavior (e.g., employee exercise patterns by industry and/or other categories of companies) would, over time, become readily available to companies. Therefore, the staff stated in SAB 107 that it would not expect a company to use the simplified method for share option grants after December 31, 2007. The staff understands that such detailed information about employee exercise behavior may not be widely available by December 31, 2007. Accordingly, the staff will continue to accept, under certain circumstances, the use of the simplified method beyond December 31, 2007. The Company is in the process of evaluating the provisions of SAB 110 and does not believe the adoption of SAB 110 will have a material impact on its consolidated financial statements.

## 2. Property and Equipment

Property and equipment consisted of the following:

	December 31,	
	2007	2006
Laboratory equipment .....	\$ 102	\$12,426
Leasehold improvements .....	863	12,143
Office equipment .....	6,141	8,776
Total property and equipment .....	7,106	33,345
Less accumulated depreciation and amortization .....	6,627	21,130
Total property and equipment, net .....	<u>\$ 479</u>	<u>\$12,215</u>

The decreases in property and equipment during 2007 were a result of write-offs related to the 2007 corporate restructurings, including the closure of the Company's pilot manufacturing plant. Depreciation and amortization expense for property and equipment was \$2,944, \$6,273, and \$5,408, for the years ended December 31, 2007, 2006 and 2005, respectively.

## 3. Leases

### *Operating Leases*

The Company enters into lease agreements for its operations. Total rent expense under all operating leases for 2007, 2006 and 2005 was approximately \$1,350, \$1,281, and \$2,084 respectively. The future minimum rental payments as of December 31, 2007 are \$665, payable in 2008 and there are no further payments due thereafter.

**CURAGEN CORPORATION AND SUBSIDIARY**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

**4. Major Collaborators and Geographical Information**

The Company has entered into certain agreements with collaborators to provide products or services. There are no long-lived assets in countries other than the United States. Revenues from collaborators representing 10% or more of the Company's total collaboration revenues are as follows:

	Year Ended December 31,					
	2007		2006		2005	
	\$	%	\$	%	\$	%
Company A .....	\$ 88	100%	*	*	*	*
Company B .....	—	—	\$2,110	92%	\$4,612	96%

\* less than 10%

Revenue by country, based on the location of each of the collaborators is as follows:

	Year Ended December 31,		
	2007	2006	2005
United States .....	\$—	\$ 173	\$ 179
Europe .....	88	2,125	4,612
All others .....	—	—	34
Total .....	<u>\$ 88</u>	<u>\$2,298</u>	<u>\$4,825</u>

**5. Stockholders' Equity**

*Authorized Capital Stock*

The Company's authorized capital stock consists of 250,000,000 shares of Common Stock, par value of \$.01 per share ("Common Stock"), 5,000,000 shares of Preferred Stock, par value of \$.01 per share and 3,000,000 shares of Non-Voting Common Stock. At December 31, 2007, the Company had reserved 7,215,646 shares of Common Stock for issuance pursuant to the 4% convertible subordinated notes due in 2011 (see Note 7). In addition, as of December 31, 2007 6,664,141 and 1,950,000 shares of Common Stock had been reserved for issuance pursuant to the 1997 Stock and the 2007 Stock Plan, respectively.

*Common Stock*

In August 2005, the Company issued 4,000,000 shares of its Common Stock at a public offering price of \$5.50 per share. Net proceeds, after underwriting discounts and stock issuance costs, were \$20,848. The net proceeds were used during August and September 2005 for repurchases of the Company's outstanding convertible debt.

*Stockholder Rights Plan*

In March 2002, the Board of Directors of the Company adopted a stockholder rights plan and declared a dividend distribution of one preferred share purchase right for each outstanding share of the Company's Common Stock. Each right entitles registered holders of the Company's Common Stock to purchase one one-hundredth of a share of a new series of junior participating Preferred Stock, designated as "Series A Junior Participating Preferred Stock." The rights generally will be exercisable only if a person (which term includes an entity or group) (i) acquires 20 percent or more of the Company's Common Stock or (ii) announces a tender offer, the

# CURAGEN CORPORATION AND SUBSIDIARY

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

consummation of which would result in ownership by that person, entity or group of 20 percent or more of the common stock. Once exercisable, the stockholder rights plan allows the Company's stockholders (other than the acquiror) to purchase Common Stock of the Company or of the acquiror at a substantial discount.

### Stock Options

#### 1993 Stock Plan

The Company's 1993 Stock Plan was adopted by its Board of Directors and stockholders in December 1993 and subsequently amended by the Board of Directors in May 1997. The 1993 Stock Plan provided for the issuance of stock options and stock awards to officers, directors, advisors, employees, and affiliates of CuraGen. Of the 3,000,000 shares of Common Stock which were originally reserved for issuance under the 1993 Stock Plan, no options were outstanding as of December 31, 2007 and 1,576,504 stock options had been exercised under the 1993 Stock Plan as of December 31, 2007. Effective October 1997, upon a resolution by the Board of Directors, the Company will not grant any further options under the 1993 Stock Plan.

A summary of all stock option activity under the 1993 Stock Plan during the years ended December 31, 2005, 2006 and 2007 is as follows:

	Number of Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (in years)	Aggregate Intrinsic Value
Outstanding January 1, 2005 .....	314,064	\$2.52	1.63	\$1,457
Granted .....	—			
Exercised .....	(91,200)	1.56		
Canceled or lapsed .....	—			
Outstanding December 31, 2005 .....	222,864	2.91	1.10	160
Granted .....	—			
Exercised .....	(128,400)	1.83		
Canceled or lapsed .....	(7,800)	5.00		
Outstanding December 31, 2006 .....	86,664	4.33	0.63	40
Granted .....	—			
Exercised .....	—			
Canceled or lapsed .....	(86,664)	4.33		
Outstanding December 31, 2007 .....	—			
Exercisable December 31, 2005 .....	222,864	2.91	1.10	160
Exercisable December 31, 2006 .....	86,664	4.33	0.63	40
Exercisable December 31, 2007 .....	—	—	—	—

The total intrinsic value of options exercised under the 1993 Stock Plan during the years ended December 31, 2006 and 2005 were \$258 and \$382 respectively. There were no options exercised under the 1993 Stock Plan during the year ended December 31, 2007.

#### 1997 Stock Plan

The Company's 1997 Stock Plan was approved by its Board of Directors in October 1997 and by its stockholders in January 1998. The 1997 Stock Plan provides for the issuance of stock options and stock grants

**CURAGEN CORPORATION AND SUBSIDIARY**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

("Stock Rights") to employees, directors and consultants of the Company. A total of 3,000,000 shares of Common Stock were originally reserved for issuance under the 1997 Stock Plan; in May 1999, upon approval of the stockholders, the amount reserved was increased to 7,000,000; and, in May 2003, upon approval of the stockholders, the amount reserved was increased to 10,500,000. The 1997 Stock Plan is administered by the Compensation Committee of the Board of Directors of the Company ("the Compensation Committee"). The Compensation Committee has the authority to administer the provisions of the 1997 Stock Plan and to determine the persons to whom Stock Rights will be granted, the number of shares to be covered by each Stock Right and the terms and conditions upon which a Stock Right may be granted. Effective May 2007, upon a resolution by the Board of Directors, the Company will not grant any further options under the 1997 Stock Plan. Generally, stock option grants to employees under the 1997 Stock Plan fully vest between four and five years from the grant date. As of December 31, 2007, the Company had 3,696,919 options outstanding under the 1997 Stock Plan and 1,656,262 stock options had been exercised under the 1997 Stock Plan.

A summary of all stock option activity under the 1997 Stock Plan during the years ended December 31, 2005, 2006 and 2007 is as follows:

	Number of Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (in years)	Aggregate Intrinsic Value
Outstanding January 1, 2005 .....	5,045,687	\$13.28	5.07	\$6,593
Granted .....	1,224,625	5.42		
Exercised .....	(120,632)	3.75		
Canceled or lapsed .....	(966,369)	13.80		
Outstanding December 31, 2005 .....	5,183,311	11.54	6.02	18
Granted .....	1,673,070	3.86		
Exercised .....	(112,649)	3.22		
Canceled or lapsed .....	(506,108)	14.69		
Outstanding December 31, 2006 .....	6,237,624	9.37	6.32	2,166
Granted .....	104,080	4.25		
Exercised .....	(19,400)	3.70		
Canceled or lapsed .....	(2,625,385)	13.67		
Outstanding December 31, 2007 .....	<u>3,696,919</u>	6.21	5.67	—
Exercisable December 31, 2005 .....	<u>3,286,775</u>	14.02	4.75	18
Exercisable December 31, 2006 .....	<u>3,559,479</u>	12.53	4.78	900
Exercisable December 31, 2007 .....	<u>2,605,910</u>	6.84	4.81	—
Shares Expected to Vest December 31, 2007 ....	<u>574,906</u>	4.68	7.69	—

The total intrinsic value of options exercised under the 1997 Stock Plan during the years ended December 31, 2007, 2006 and 2005 were \$10, \$51 and \$251, respectively.

**CURAGEN CORPORATION AND SUBSIDIARY**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

The following table presents weighted average price information about significant option groups under the 1997 Stock Plan exercisable at December 31, 2007:

<u>Range of Exercise Prices</u>	<u>Number of Options Exercisable</u>	<u>Weighted Average Remaining Contractual Life (in years)</u>	<u>Weighted Average Exercise Price</u>
\$ 0-3.56 .....	715,945	6.02	\$ 3.34
3.85-4.80 .....	942,600	6.52	4.41
5.09-6.10 .....	524,453	4.80	5.72
8.48-8.71 .....	195,235	5.29	8.68
15.83-22.50 .....	76,925	2.96	16.50
24.94-31.66 .....	101,135	2.42	27.26
41.13-53.03 .....	49,617	1.31	51.37
	<u>2,605,910</u>		

**2007 Stock Plan**

The 2007 Stock Plan was approved by the Company's stockholders as of May 2, 2007. The 2007 Stock Plan provides for the issuance of stock options and stock grants to employees, directors and consultants of the Company. A total of 3,000,000 shares of common stock were reserved for issuance under the 2007 Stock Plan. The 2007 Stock Plan is administered by the Compensation Committee. The Compensation Committee has the authority to administer the provisions of the 2007 Stock Plan and to determine the persons to whom Stock Rights will be granted, the number of shares to be covered by each Stock Right and the terms and conditions upon which a Stock Right may be granted. Stock option grants to employees under the 2007 Stock Plan generally fully vest in four years. Of the 3,000,000 shares of Common Stock which are reserved for issuance under the 2007 Stock Plan, 717,548 options are outstanding under the 2007 Stock Plan and an additional 1,232,452 available for grant. As of December 31, 2007, no stock options had been exercised under the 2007 Stock Plan.

A summary of all stock option activity under the 2007 Stock Plan during the year ended December 31, 2007 is as follows:

	<u>Number of Options</u>	<u>Weighted Average Exercise Price</u>	<u>Weighted Average Remaining Contractual Life (in years)</u>	<u>Aggregate Intrinsic Value</u>
Outstanding May 2, 2007 .....	—			
Granted .....	724,556	\$1.59		
Exercised .....	—	—		
Canceled or lapsed .....	(7,008)	1.97		
Outstanding December 31, 2007 .....	<u>717,548</u>	1.59	9.45	—
Exercisable December 31, 2007 .....	<u>107,500</u>	2.73	7.94	—
Shares Expected to Vest December 31, 2007 .....	<u>577,034</u>	\$1.37	9.72	—

There were no options exercised under the 2007 Stock Plan during the year ended December 31, 2007. At December 31, 2007 all 107,500 of exercisable options under the 2007 Stock Plan were exercisable at \$2.73.

**CURAGEN CORPORATION AND SUBSIDIARY**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

***Restricted Stock***

***1997 Stock Plan***

From time to time, the Compensation Committee approves grants for shares of restricted stock. Pursuant to the provisions of the 1997 Stock Plan and 2007 Stock Plan, the purchase price of the restricted stock is equal to the par value of the Company's Common Stock, and each grant of restricted stock is subject to certain repurchase rights of the Company. All repurchased shares are immediately retired upon resolutions by the Board of Directors.

A summary of all restricted stock activity under the 1997 Stock Plan during the years ended December 31, 2005, 2006 and 2007 is as follows:

	<u>Number of Shares of Restricted Stock</u>	<u>Weighted Average Grant Date Fair Value</u>
Outstanding January 1, 2005 .....	450,895	\$6.24
Granted .....	772,875	4.06
Restrictions lapsed .....	(97,250)	6.36
Repurchased upon employee termination .....	(83,200)	6.13
Outstanding December 31, 2005 .....	1,043,320	4.63
Granted .....	455,000	4.13
Restrictions lapsed .....	(460,070)	5.31
Repurchased upon employee termination .....	(31,625)	5.03
Outstanding December 31, 2006 .....	1,006,625	4.08
Granted .....	487,020	4.39
Restrictions lapsed .....	(760,395)	4.09
Repurchased upon employee termination .....	(42,230)	4.51
Outstanding December 31, 2007 .....	<u>691,020</u>	4.25

The total fair value of restricted shares vested during the year ended December 31, 2007, 2006 and 2005 was \$700, \$1,823 and \$548, respectively.

As of December 31, 2007, of the 691,020 of outstanding shares of restricted stock, 312,500 shares were issued in 2006 and will partially vest on the second and third anniversary of each grant date, with the lapsing of the repurchase rights. The remaining 378,520 outstanding shares of restricted stock which were issued in 2007 will partially vest on the first, second and third anniversary of each grant date.

***2007 Stock Plan***

A summary of all restricted stock activity under the 2007 Stock Plan during the year ended December 31, 2007 is as follows:

	<u>Number of Shares of Restricted Stock</u>	<u>Weighted Average Grant Date Fair Value</u>
Outstanding May 2, 2007 .....	—	—
Granted .....	1,050,000	\$1.28
Restrictions lapsed .....	—	—
Repurchased upon employee termination .....	—	—
Outstanding December 31, 2007 .....	<u>1,050,000</u>	1.28

**CURAGEN CORPORATION AND SUBSIDIARY**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

There were no restricted shares vested under the 2007 Stock Plan during the year ended December 31, 2007.

On May 25, 2007, the Compensation Committee of the Company approved the issuance of an aggregate of 975,000 shares of restricted common stock to five executive officers, which will vest and become free from forfeiture on December 31, 2008, if the closing price of the common stock on the Nasdaq Global Market has equaled or exceeded \$5.00 per share over a period of 20 consecutive trading days for any period ending on or before December 31, 2008. In each case, the shares of common stock described above will only vest if the executive is an employee of the Company as of December 31, 2008. Therefore, pursuant to SFAS 123R, these restricted stock awards are deemed to contain a market condition which is reflected in the grant-date fair value of the awards, based on a valuation technique which considered all the possible outcomes of such market condition. Compensation cost is required to be recognized over the requisite service period for an award with a market condition provided that the requisite service is rendered, regardless of when, if ever, the market condition is satisfied. Accordingly, the Company will reverse previously recognized compensation cost for the above awards only if the requisite service is not rendered.

As of December 31, 2007, the remaining 75,000 outstanding shares of restricted stock which were issued in 2007 will vest on the first and second anniversary of each grant date, with the lapsing of the repurchase rights.

**6. Income Taxes**

The Company provides for income taxes using the asset and liability method. The difference between the income tax benefit and the amount that would be computed by applying the statutory Federal income tax rate to loss from continuing operations before income tax benefit is attributable to the following:

	Year Ended December 31,		
	2007	2006	2005
Loss from continuing operations before income tax benefit . . . .	<u>\$(50,148)</u>	<u>(\$ 57,540)</u>	<u>(\$ 69,571)</u>
Expected tax benefit at 35% . . . . .	\$ 17,552	\$ 20,139	\$ 24,350
Connecticut taxes, including research and development credits subject to carryforward, net of federal benefit . . . . .	622	3,426	4,259
Federal research and development credits subject to carryforward . . . . .	1,472	1,458	1,495
Increase in valuation allowance on deferred tax asset . . . . .	(19,327)	(24,284)	(29,699)
Other items . . . . .	(134)	(363)	(2)
Total income tax benefit . . . . .	<u>\$ 185</u>	<u>\$ 376</u>	<u>\$ 403</u>

The income tax benefits were recorded as a result of Connecticut legislation, which allows companies to obtain cash refunds from the State of Connecticut at a rate of 65% of their annual research and development expense credit, in exchange for forgoing carryforward of the research and development credit. For the years ended December 31, 2007 and 2006, the income tax benefit included adjustments resulting from the expiration of the State of Connecticut statute, as they relate to the Year 2003 and Year 2002 income tax benefit, respectively.



**CURAGEN CORPORATION AND SUBSIDIARY**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

Temporary differences and carryforwards that give rise to the deferred income tax assets are as follows:

	<u>December 31,</u>	
	<u>2007</u>	<u>2006</u>
Net deferred income tax assets:		
Net operating loss carryforwards .....	\$ 209,268	\$ 206,777
Research and development tax credit carryforwards .....	29,492	27,778
Stock options and restricted stock .....	2,811	2,077
Depreciation and amortization .....	367	1,996
Accumulated other comprehensive (income) loss .....	(9)	936
Other .....	586	745
	<u>\$ 242,515</u>	<u>\$ 240,309</u>
Valuation allowance .....	(242,515)	(240,309)
Total .....	<u>\$ —</u>	<u>\$ —</u>

As the Company has no prior earnings history, a valuation allowance has been established to fully offset the Company's deferred tax asset since it is more likely than not that the Company will not realize such assets. A tax benefit of approximately \$30,866 related to stock options, will be credited to equity when the benefit is realized. For the year ended December 31, 2007, the increase in the valuation allowance was \$2,206 which was comprised of an increased valuation in the amount of \$19,327 for continuing operations, a decrease of \$16,104 related to discontinued operations, and a decrease of \$1,017 related to other comprehensive income and miscellaneous items. The increase in the valuation allowance was \$26,971 and \$28,964, for the years ended December 31, 2006 and 2005, respectively.

As of December 31, 2007, CuraGen has tax net operating loss carryforwards available to reduce future federal and Connecticut taxable income, research and development tax credit carryforwards available to offset future federal and Connecticut income taxes. Utilization of the net operating loss and tax credit carryforwards may be limited due to changes to our ownership, as defined within Section 382 of the Internal Revenue Code.

**Net Operating Loss Carryforwards**

<u>Federal</u>	<u>Expire In</u>	<u>Connecticut</u>	<u>Expire In</u>
\$532,514	2009 to 2028	\$469,485	2021 to 2028

**Research and Development Tax Credit Carryforwards**

<u>Federal</u>	<u>Expire In</u>	<u>Connecticut</u>	<u>Expire In</u>
\$20,184	2009 to 2028	\$ 14,233	2014 to 2023

**7. Convertible Subordinated Debt**

*6% Convertible Subordinated Debentures Due 2007*

In 2000, the Company completed an offering for \$150,000 of 6% convertible subordinated debentures due February 2, 2007 and received net proceeds of approximately \$145,600. During 2005 and 2004, the Company repurchased \$83,772 of its 6% convertible subordinated debentures due in 2007, for total consideration of \$81,540, plus accrued interest of \$1,221 to the date of repurchase, and recorded a net gain of \$1,472 in Gain on extinguishment of debt, which includes the write-off of the ratable portion of unamortized deferred financing costs relating to the repurchased debt.

**CURAGEN CORPORATION AND SUBSIDIARY**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

The debentures may be resold by the initial purchasers to qualified institutional buyers under Rule 144A of the Securities Act and to non-U.S. persons outside the United States under Regulation S under the Securities Act. The debentures are convertible at the election of the Company into Common Stock at any time prior to their maturity at a conversion price of \$63.8275 per share, or a total of 1,037,609 shares of Common Stock issuable upon conversion of the notes as of December 31, 2006. On December 31, 2006, the market value of the debentures, based on quoted market prices, was approximately \$66,063.

The Company pays cash interest on the debentures on February 2 and August 2 of each year. Related interest expense for the each of the years ended December 31, 2007, 2006 and 2005 was \$331, \$3,974 and \$6,181, respectively.

On February 2, 2007, the Company repaid the remaining \$66,228 balance outstanding on the 6% convertible subordinated debentures plus accrued interest of \$1,986.

*4% Convertible Subordinated Notes Due 2011*

In 2004, the Company completed an offering of \$110,000 of 4% convertible subordinated notes due February 15, 2011 and received net proceeds of approximately \$106,200. During 2007, the Company repurchased a total of \$40,110 of its 4% convertible subordinated debentures due February 2011, for total consideration of \$31,024, plus accrued interest of \$365 to the date of repurchase. As a result of the transaction, in 2007 the Company recorded a gain of \$8,442 classified as Gain on extinguishment of debt on the consolidated statement of operations, which is net of the effect of the write-off of the ratable portion of unamortized deferred financing costs relating to the repurchased debt.

The remaining \$69,890 of notes may be resold by the initial purchasers to qualified institutional buyers under Rule 144A of the Securities Act and to non-U.S. persons outside the United States under Regulation S under the Securities Act. The notes are convertible by the holders of the notes into the Company's Common Stock at any time prior to the close of business on the maturity date of the notes, unless previously redeemed or repurchased, at a conversion rate of approximately \$9.69 per share of Common Stock, or a total of 7,215,646 shares of Common Stock issuable upon conversion of the notes as of December 31, 2007.

In addition, during the period commencing February 18, 2009, to and including February 14, 2010, the Company has the right to redeem the notes at a redemption price equal to 101.143% of the principal amount of the notes plus accrued and unpaid interest, if any, to, but not including, the redemption date; and beginning on February 15, 2010, the Company has the right to redeem the notes at a redemption price equal to 100.571% of the principal amount of the notes plus accrued and unpaid interest, if any, to, but not including, the redemption date. The market value of the notes, based on quoted market prices, was approximately \$50,146 as of December 31, 2007.

The Company pays interest in cash on the notes on February 15 and August 15 of each year. Related interest expense for the years ended December 31, 2007, 2006 and 2005 was \$4,200, \$4,400 and \$4,400, respectively.

**8. Available-for-Sale Securities**

The Company purchases short-term investments and marketable securities consisting of debt securities, which have been designated as "available-for-sale" as required by Statement of Financial Accounting Standards No. 115, "Accounting for Certain Investments in Debt and Equity Securities." Available-for-sale securities are carried at fair value with the unrealized gains and losses reported in stockholders' equity under the caption

# CURAGEN CORPORATION AND SUBSIDIARY

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Accumulated other comprehensive income (loss). The amortized cost of debt securities is adjusted for amortization of premiums and accretion of discounts to maturity. Interest on debt securities, amortization of premiums and accretion of discounts is included in interest income. The cost of securities sold is based on the specific identification method. At December 31, 2007 the Company has 9% of its cash, restricted cash and investment securities in mortgage-backed securities. All of these mortgage backed securities are sponsored by the United States Federal Government and are rated AAA by Moody's. Additionally, the Company has 23% of its cash, restricted cash and investment securities in asset backed securities which consist of auto, credit card and equipment loans all with AAA ratings by Moody's. The asset backed and mortgage backed securities have been priced by independent parties and trade at a net unrealized loss of \$23 and the largest unrealized loss on any individual security is \$34. The Company believes that any individual unrealized loss as of December 31, 2007 represents only a temporary impairment, and no adjustment of carrying values is warranted at this time.

The amortized cost, gross unrealized gains and losses and estimated fair value based on published closing prices of securities at December 31, 2007 and 2006, by contractual maturity, are shown below. Contractual maturities of mortgage backed and asset-backed securities are allocated in the tables based on the expected maturity date. In September 2007 the Company sold its equity investment in TopoTarget for proceeds of \$6,260 and realized a gain of \$973. In November 2007, the Company sold one of its investments to partially fund the repurchases of the 4% convertible debentures and realized a loss of \$308.

	December 31, 2007			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
Available-for-sale securities:				
Due in one year or less .....	\$53,072	\$ 27	\$111	\$52,988
Due in one through three years .....	30,665	135	74	30,726
Total Available-for sale securities .....	<u>\$83,736</u>	<u>\$162</u>	<u>\$185</u>	<u>\$83,714</u>

The investment in TopoTarget was classified as an available-for-sale long-term marketable security and was included in Intangible and other assets, net, on the December 31, 2006 consolidated balance sheet at a fair value of \$9,163 which included an unrealized gain of \$3,875.

	December 31, 2006			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
Available-for-sale securities:				
Due in one year or less .....	\$ 55,766	\$ 3	\$ 585	\$ 55,184
Due in one through three years .....	44,026	6	792	43,240
Due in three through five years .....	7,642	—	159	7,483
Total Available-for sale securities .....	<u>\$107,434</u>	<u>\$ 9</u>	<u>\$1,536</u>	<u>\$105,907</u>

For the year ended December 31, 2007 the Company realized gross gains of \$1,033 and gross losses of \$418 on securities sold. For the year ended December 31, 2006, the Company realized zero gross gains and gross losses of \$288 on securities sold. For the year ended December 31, 2005, the Company realized gross gains of \$4 and gross losses of \$193.

# CURAGEN CORPORATION AND SUBSIDIARY

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

The following tables show the gross unrealized losses and fair values of the Company's investments in individual securities that have been in a continuous unrealized loss position deemed to be temporary for less than 12 months, aggregated by contractual maturity:

December 31, 2007	
Fair Value	Unrealized Losses
Due in one year or less . . . . .	\$8,054      \$3
December 31, 2006	
Fair Value	Unrealized Losses
Due in one year or less . . . . .	\$12,779      \$3

The following table shows the gross unrealized losses and fair values of the Company's investments in individual securities that have been in a continuous unrealized loss position deemed to be temporary for more than 12 months, aggregated by contractual maturity:

December 31, 2007	
Fair Value	Unrealized Losses
Due in one year or less . . . . .	\$27,689      \$108
Due in one through three years . . . . .	13,778      74
	<u>\$41,467      \$182</u>
December 31, 2006	
Fair Value	Unrealized Losses
Due in one year or less . . . . .	\$35,680      \$ 582
Due in one through three years . . . . .	35,970      792
Due in three through five years . . . . .	6,777      159
	<u>\$78,427      \$1,533</u>

### 9. Restructuring and Related Charges

In June 2003, CuraGen announced a restructuring plan intended to focus resources on continuing to advance its pipeline of protein, antibody, and small molecule therapeutics into preclinical and clinical development. In connection with the June 2003 restructuring plan, a charge of \$2,888 was recorded in the second quarter of 2003, including \$1,742 related to employee separation costs, \$1,046 of operating lease obligations and a \$100 asset impairment charge. The cash requirements under the June 2003 restructuring plan were \$2,681, of which all were paid prior to December 31, 2007.

In November 2005, CuraGen underwent a corporate restructuring to focus on advancing its therapeutic pipeline through clinical development. In connection with the November 2005 restructuring plan, a charge of \$1,537 was recorded in the fourth quarter of 2005, including \$1,396 of operating lease obligations and \$141 of asset impairment costs. The cash requirements under the November 2005 restructuring plan were \$1,396, of which all were paid prior to December 31, 2007.

**CURAGEN CORPORATION AND SUBSIDIARY**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

During June and September 2007, the Company underwent corporate restructurings to reduce operating costs and to focus resources on the advancement of its therapeutic pipeline through clinical development, resulting in a restructuring charge of \$11,274. This amount includes an asset impairment charge of \$6,322 (associated with the closure of its pilot manufacturing plant, also known as the Biopharmaceutical Sciences Process facility, or BPS, on July 27, 2007), \$4,408 related to employee separation costs paid or payable in cash, \$286 of non-cash employee separation costs and \$258 of other asset write-offs.

The following table details the charges, cash payments and balance of the restructuring reserve as of and for the year ended December 31, 2007:

	<u>Charge</u>	<u>Cash Payments in 2007</u>	<u>Reserve at December 31, 2007</u>
Employee separation costs:			
Cash	\$4,408	<u>\$1,617</u>	<u>\$2,791</u>
Non-cash	<u>286</u>		
Total employee separation costs	<u>4,694</u>		
Impairment of assets:			
Asset impairment charge	<u>6,580</u>		
Total restructuring charge	<u>\$11,274</u>		

**10. TopoTarget A/S Collaboration and License Agreement**

In June 2004, the Company and TopoTarget entered into a license and collaboration agreement to develop and commercialize belinostat, a novel histone deacetylase ("HDAC") inhibitor for the treatment of solid and hematological cancers. Under the terms of the agreement, the Company acquired exclusive rights to develop and commercialize belinostat in North America, Asia and all other markets excluding Europe. TopoTarget retained commercialization rights in Europe.

Under the financial terms of the agreement, during 2004, the Company made a \$5,000 investment in TopoTarget, which was recorded as a Convertible Loan Receivable and was included in Intangible and other assets, net on the December 31, 2004 balance sheet. The loan was due May 10, 2009, unless TopoTarget completed an Initial Public Offering on the Copenhagen Stock Exchange ("IPO"), at which time the loan must convert into TopoTarget common stock at the IPO subscription price. The loan began accruing interest quarterly on June 30, 2004, at an annual rate of 6% and such interest was added to the principal amount of the loan on a quarterly basis if not paid by TopoTarget.

On June 10, 2005, TopoTarget completed an IPO of 11,500,000 shares of common stock at a per share price of DKK 22,50 (\$3.698 USD). Simultaneously, on June 10, 2005, the Convertible Loan Receivable in the amount of \$5,288 (including accrued interest) was automatically converted into 1,429,687 shares of TopoTarget common stock, providing the Company with an approximate 3.58% ownership in TopoTarget at fair value. During 2007, the Company sold its Investment in TopoTarget for proceeds of \$6,260 and realized a gain of \$973.

In November 2006, the Company granted exclusive worldwide rights to a third party to develop, manufacture, and commercialize PXD118490, a preclinical HDAC inhibitor, for the treatment of psoriasis and other dermatological disorders. Under the terms of the agreement between TopoTarget and the third party, TopoTarget received during 2006 initial payments totaling 2,000 euros (approximately \$2,600). Under the terms

## **CURAGEN CORPORATION AND SUBSIDIARY**

### **NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

of an existing agreement between TopoTarget and the Company, the Company will receive 50% of all payments received by TopoTarget under the licensing agreement between TopoTarget and the third party. In January 2008, TopoTarget was informed by the third party that it will be terminating the development of the preclinical compound pursuant to which the Company received the collaboration revenue.

#### **11. Seattle Genetics, Inc. Collaboration Agreement**

In June 2004, the Company and Seattle Genetics, Inc. ("Seattle Genetics") entered into a collaboration agreement to license Seattle Genetics' proprietary antibody-drug conjugate ("ADC") technology for use with the Company's proprietary antibodies for the potential treatment of cancer. The Company paid an upfront fee of \$2,000 for access to the ADC technology for use in one of its proprietary antibody programs. In February 2005, the Company also exercised its option to access Seattle Genetics' ADC technology for use with a second antibody program in exchange for a \$1,000 payment. In June 2006, the Company paid a milestone payment for the enrollment of the first patient in the first Phase I clinical trial of CR011-vcMMAE for the treatment of metastatic melanoma. All payments discussed above were fully expensed at the time of payment, pursuant to the Company's accounting policy for such fees.

The Company is responsible for research, product development, manufacturing and commercialization of all products under the collaboration, and will pay maintenance and material supply fees as well as research support payments for any assistance provided by Seattle Genetics in developing ADC products.

#### **12. Segment Reporting**

As of December 31, 2006, the Company had two reportable segments, CuraGen and 454. As of March 31, 2007, 454 was classified as a discontinued operation as a result of the Merger Agreement with Roche Holdings, Inc. and 13 Acquisitions, Inc., an indirect wholly-owned subsidiary of Roche Holdings, Inc. (the "Merger Agreement"). Accordingly, as of December 31, 2007, the Company operated as one segment excluding discontinued operations (see Note 14).

#### **13. 454 Life Sciences/Roche Holdings, Inc. Merger**

On March 28, 2007, 454 entered into the Merger Agreement. Roche Holdings, Inc. subsequently assigned the Merger Agreement to its affiliate RDO. Roche Holdings, Inc. and RDO are affiliates of Roche, a global research-based healthcare company. Under the Merger Agreement, 13 Acquisitions, Inc. was merged with and into 454 (the "Merger"), with 454 continuing after the Merger as the surviving corporation and an indirect wholly-owned subsidiary of Roche Holdings, Inc.

Under the terms of the Merger Agreement, upon the closing of the sale of 454 to RDO on May 25, 2007, the purchase price before transaction costs was \$152,019, of which RDO paid \$140,000 in cash and \$12,019 was received from the exercise of 454 stock options following the signing of the Merger Agreement and prior to the closing of the sale. Of the \$140,000 received from RDO, \$25,000 was placed in escrow for a period of 15 months, or until August 25, 2008, to provide for certain post-closing adjustments based on 454's net working capital and net debt on May 25, 2007, and to secure the indemnification rights of RDO and its affiliates. The Company believes it will receive its share of the escrow fund, or \$14,129, after expiration of the escrow term on August 25, 2008 and has included such amount in the determination of the gain on sale in accordance with Statement of Financial Accounting Standards No. 141, "Business Combinations". Interest earned on the Company's portion of restricted cash is being accrued on a quarterly basis and accordingly, \$404 was accrued in 2007. As a result, \$14,533 is classified as restricted cash and is included in current assets on the accompanying consolidated Balance Sheets, due to its short-term nature as of December 31, 2007.

**CURAGEN CORPORATION AND SUBSIDIARY**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

Following the closing, as required by the Merger Agreement, 454 prepared a closing balance sheet and calculated its net working capital and net debt as of the closing date. Based upon the closing balance sheet and net working capital and net debt calculations, RDO paid an additional \$1,030 in merger consideration to 454 shareholders. In July 2007, CuraGen received \$582, its portion of this additional amount, which was included in the calculation of the gain on sale of subsidiary reported in the second quarter of 2007.

The Company's portion of the purchase price after transaction costs, including the net working capital and net debt adjustment and the amount expected from the escrow, was \$82,023.

**14. Discontinued Operations**

The sale of 454 on May 25, 2007 has been accounted for in accordance with Statement of Financial Accounting Standards No. 144, "Accounting for the Impairment or Disposal of Long-Lived Assets", ("SFAS 144"), and 454's operating results are reported as a discontinued operation for the period January 1, 2007 to May 25, 2007 and the years ended December 31, 2005 and 2006.

The following table summarizes the financial information for the discontinued operations of 454 for the period January 1, 2007 to May 25, 2007 and the years ended December 31, 2005 and 2006:

	January 1 to May 25, 2007	Year ended December 31, 2006	Year ended December 31, 2005
<b>Revenue:</b>			
Product revenue .....	\$ 14,210	\$ 19,417	\$ 12,558
Sequencing service revenue .....	3,825	10,025	2,623
Collaboration revenue .....	1,350	1,500	—
Grant revenue .....	444	2,296	2,826
Milestone revenue .....	3,707	4,050	950
<b>Total revenue .....</b>	<b>\$ 23,536</b>	<b>\$ 37,288</b>	<b>\$ 18,957</b>
<b>Operating Expenses:</b>			
Cost of product revenue .....	\$ 9,015	\$ 11,586	\$ 4,688
Cost of sequencing service revenue .....	2,407	4,334	1,047
Grant research expenses .....	425	2,095	2,201
Research and development expenses .....	7,908	14,535	10,950
General and administrative expenses .....	7,075	8,810	6,461
<b>Total operating expenses .....</b>	<b>\$ 26,830</b>	<b>\$ 41,360</b>	<b>\$ 25,347</b>
Loss from discontinued operations before minority interest .....	(\$ 3,053)	(\$ 3,655)	(\$ 6,019)
Minority interest in loss of discontinued consolidated subsidiary .....	62	980	1,943
Gain on sale of subsidiary .....	78,352	—	—
<b>Income (loss) from discontinued operations ...</b>	<b>\$ 75,361</b>	<b>(\$ 2,675)</b>	<b>(\$ 4,076)</b>

During the third quarter of 2006, the cumulative losses applicable to the minority interest in subsidiary exceeded the minority interest in the equity capital of 454, therefore, the majority of losses applicable to the minority interest from the third quarter of 2006 through the closing of the sale of 454 in the second quarter of 2007 were charged to CuraGen.

**CURAGEN CORPORATION AND SUBSIDIARY**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

The following tables set forth the components of 454's assets and liabilities classified as held for sale on the consolidated Balance Sheets at December 31, 2006 (in thousands):

	December 31, 2006
Cash and cash equivalents .....	\$ 4,164
Short-term investments .....	1,507
Marketable securities .....	90
Accounts, grants and royalty receivable .....	10,850
Inventory .....	9,855
Property and equipment, net .....	3,945
Licensing fees, net .....	3,281
Other assets .....	1,189
Assets held for sale .....	<u>\$34,881</u>

	December 31, 2006
Accounts payable .....	\$ 841
Accrued expenses .....	1,458
Deferred revenue .....	27,539
Other liabilities .....	897
Liabilities held for sale .....	<u>\$30,735</u>

**15. Accounting for Uncertainty in Income Taxes**

In July 2006, the Financial Accounting Standards Board ("FASB") issued FASB Interpretation No. 48, "Accounting for Uncertainty in Income Taxes" ("FIN 48"). FIN 48 clarifies the accounting for uncertainty in income taxes recognized in an enterprise's financial statements in accordance with FASB Statement No. 109 "Accounting for Income Taxes." This interpretation prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. It also provides guidance on derecognition, classification, interest and penalties, accounting for taxes in interim periods and disclosure requirements. The provisions of FIN 48 are to be applied to all tax positions upon initial adoption of this standard. Only tax positions that meet the more-likely-than-not recognition threshold at the effective date may be recognized or continue to be recognized upon adoption of FIN 48. Unrecognized tax benefits are tax benefits claimed in our tax returns that do not meet these recognition and measurement standards. The cumulative effect of applying the provisions of FIN 48 should be reported as an adjustment to the opening balance of retained earnings for that fiscal year. The provisions of FIN 48 are effective for fiscal years beginning after December 15, 2006. For the Company, this interpretation was effective beginning January 1, 2007.

As a result of the implementation of FIN 48, the Company recorded no adjustments in its unrecognized income tax benefits. The following table depicts the components of the Company's unrecognized income tax benefits as of December 31, 2007.

<b><i>Liability for Unrecognized Tax Benefits</i></b>	
Unrecognized tax benefits, January 1, 2007 .....	\$809
Gross increases—tax positions in prior periods .....	98
Gross decreases—tax positions in prior periods .....	—
Gross increases—current period tax positions .....	—
Settlements .....	—
Lapse of statute of limitations .....	—
Unrecognized tax benefits, December 31, 2007 .....	<u>\$907</u>



**CURAGEN CORPORATION AND SUBSIDIARY**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

If recognized, all of the unrecognized tax benefits would be recorded as a benefit to income tax expense on the consolidated statements of operations. The Company does not currently anticipate significant changes in the amount of unrecognized income tax benefits over the next year. To the extent penalties and interest would be assessed on any underpayment of income tax, the Company's policy is that such amounts would be accrued and classified as a component of income tax expense in the financial statements. To date the Company has not accrued any interest or penalties as they would be immaterial.

As a result of net operating loss carryforwards, the Company's federal tax returns since 1992 remain open to examination with no years currently under examination by the Internal Revenue Service, and the Company's Connecticut tax returns remain open to examination for all years since 2000 with no years currently under examination by the Department of Revenue Services.

**16. Summary of Selected Quarterly Financial Data (Unaudited)**

	Quarter Ended			
	March 31	June 30	Sept. 30	Dec. 31
<b>2007:</b>				
Total revenue .....	\$ 22	\$ 22	\$ 22	\$ 22
Total operating expenses .....	15,515	21,432	11,699	11,062
Loss from continuing operations .....	(15,908)	(21,585)	(9,897)	(2,572)
Net (loss) income .....	(17,047)	54,913	(9,897)	(2,571)
Basic and diluted net (loss) income per share .....	(\$0.31)	\$ 0.98	(\$0.18)	(\$0.04)
<b>2006:</b>				
Total revenue .....	\$ 1,418	\$ 866	\$ —	\$ 14
Total operating expenses .....	14,773	14,404	14,248	14,232
Loss from continuing operations .....	(13,809)	(13,950)	(14,788)	(14,617)
Net loss .....	(13,864)	(14,299)	(15,880)	(15,796)
Basic and diluted net loss per share .....	(\$0.25)	(\$0.26)	(\$0.29)	(\$0.29)

The sale of 454 on May 25, 2007 has been accounted for in accordance with SFAS 144. In addition, 454's operating results are reported as a discontinued operation for the year ended December 31, 2006, and for the period January 1, 2007 to May 25, 2007.

## REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of CuraGen Corporation  
Branford, Connecticut

We have audited the accompanying consolidated balance sheets of CuraGen Corporation and subsidiary (the "Company") as of December 31, 2007 and 2006, and the related consolidated statements of operations, changes in stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2007. We also have audited the Company's internal control over financial reporting as of December 31, 2007, based on criteria established in *Internal Control — Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission. The Company's management is responsible for these financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Annual Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on these financial statements and an opinion on the Company's internal control over financial reporting based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

A company's internal control over financial reporting is a process designed by, or under the supervision of, the company's principal executive and principal financial officers, or persons performing similar functions, and effected by the company's board of directors, management, and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of the inherent limitations of internal control over financial reporting, including the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may not be prevented or detected on a timely basis. Also, projections of any evaluation of the effectiveness of the internal control over financial reporting to future periods are subject to the risk that the controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of CuraGen Corporation and subsidiary as of December 31, 2007 and 2006, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2007, in conformity with accounting principles generally accepted in the United States of America. Also, in our

opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2007, based on the criteria established in *Internal Control — Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

As discussed in Notes 1 and 15 to the consolidated financial statements, effective January 1, 2007, the Company adopted FASB Interpretation No. 48, *Accounting for Uncertainty in Income Taxes, an interpretation of FASB Statement No. 109* and effective January 1, 2006, the Company adopted the fair value method of accounting for stock-based compensation as required by Statement of Financial Accounting Standards No. 123(R), *Share-Based Payment*.

/s/ Deloitte & Touche LLP

Hartford, Connecticut  
March 11, 2008

**Item 9. *Changes in and Disagreements with Accountants on Accounting and Financial Disclosure***

Not applicable.

**Item 9A. *Controls and Procedures*****1. *Disclosure Controls and Procedures***

Our management, with the participation of our chief executive officer and chief financial officer, evaluated the effectiveness of our disclosure controls and procedures as of December 31, 2007. The term “disclosure controls and procedures,” as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Securities Exchange Act of 1934 is recorded, processed, summarized and reported, within the time periods specified in the SEC’s rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Securities Exchange Act of 1934 is accumulated and communicated to the company’s management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure. Our management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on this evaluation, our chief executive officer and chief financial officer concluded that, as of December 31, 2007, our disclosure controls and procedures were effective at the reasonable assurance level.

**2. *Internal Controls over Financial Reporting*****(a) *Management’s Annual Report on Internal Control over Financial Reporting***

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is defined in Rule 13a-15(f) or 15d-15(f) promulgated under the Securities Exchange Act of 1934 as a process designed by, or under the supervision of, the company’s principal executive and principal financial officers and effected by the company’s board of directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles and includes those policies and procedures that:

- pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of the assets of the company;
- provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and
- provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the company’s assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Our management, with the supervision and participation of the chief executive officer and chief financial officer, assessed the effectiveness of the Company’s internal control over financial reporting as of December 31, 2007. In making this assessment, management used the criteria set forth by the Committee of Sponsoring

Organizations of the Treadway Commission (COSO) in "Internal Control—Integrated Framework."Based on this assessment, management has concluded that, as of December 31, 2007, our internal control over financial reporting is effective based on those criteria.

(b) Deloitte & Touche LLP has issued an attestation report on our internal control over financial reporting, which report is included in the "Report of Independent Registered Public Accounting Firm" included in Item 8 of this Annual Report on Form 10-K.

(c) Changes in Internal Control over Financial Reporting

No change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) occurred during the fiscal quarter ended as of December 31, 2007 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

**Item 9B. *Other Information***

Not applicable.

### **PART III**

#### **Item 10. *Directors, Executive Officers and Corporate Governance***

The information relating to our directors, nominees for election as directors, executive officers, audit committee, code of ethics and corporate code of conduct and changes to the procedures by which our security holders may recommend nominees to our board of directors that appears under the headings “Proposal One—Election of Directors”, “Executive Officers”, “Corporate Governance”, “Code of Ethics and Corporate Code of Conduct” and “Section 16(a) Beneficial Ownership Reporting Compliance” in our definitive proxy statement for our 2008 Annual Meeting of Stockholders is incorporated herein by reference to such proxy statement.

#### **Item 11. *Executive Compensation***

The discussion under the headings “Executive Compensation”, “Director Compensation”, “Compensation Discussion and Analysis”, “Compensation Committee Report” and “Compensation Committee Interlocks and Insider Participation” in our definitive proxy statement for our 2008 Annual Meeting of Stockholders is incorporated herein by reference to such proxy statement.

#### **Item 12. *Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters***

The discussion under the heading “Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters” in our definitive proxy statement for our 2008 Annual Meeting of Stockholders is incorporated herein by reference to such proxy statement.

#### **Item 13. *Certain Relationships and Related Transactions, and Director Independence***

The discussion under the headings “Certain Relationships and Related Transactions” and “Corporate Governance” in our definitive proxy statement for our 2008 Annual Meeting of Stockholders is incorporated herein by reference to such proxy statement.

#### **Item 14. *Principal Accountant Fees and Services***

The discussion under the heading “Principal Accountant Fees and Services” in our definitive proxy statement for our 2008 Annual Meeting of Stockholders is incorporated herein by reference to such proxy statement.

## **PART IV**

### **Item 15. *Exhibits and Financial Statement Schedules***

#### **ITEM 15 (a)(1) *Financial Statements***

The following Financial Statements are included in Item 8:

Consolidated Balance Sheets as of December 31, 2007 and 2006

Consolidated Statements of Operations for the Years Ended December 31, 2007, 2006 and 2005

Consolidated Statements of Changes in Stockholders' Equity for the Years Ended December 31, 2007, 2006 and 2005

Consolidated Statements of Cash Flows for the Years Ended December 31, 2007, 2006 and 2005

Notes to Consolidated Financial Statements

Report of Independent Registered Public Accounting Firm

#### **ITEM 15 (a)(2) *Financial Statement Schedules***

All schedules are omitted because they are not applicable or the required information is shown in the financial statements or the notes thereto.

#### **ITEM 15 (a)(3) *Exhibits***

Reference is made to the index to Exhibits on page 84.

## SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Dated: March 11, 2008

CURAGEN CORPORATION

By: /s/ SEAN A. CASSIDY  
Sean A. Cassidy  
Vice President and  
Chief Financial Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>
<u>/s/ TIMOTHY M. SHANNON, M.D.</u> Timothy M. Shannon, M.D.	President and Chief Executive Officer (principal executive officer of the registrant)
<u>/s/ SEAN A. CASSIDY</u> Sean A. Cassidy	Vice President and Chief Financial Officer (principal financial and accounting officer of the registrant)
<u>Frank M. Armstrong, M.D.</u>	Director Dated: March , 2008
<u>/s/ VINCENT T. DEVITA, JR., M.D.</u> Vincent T. DeVita, Jr, M.D.	Director Dated: March 6, 2008
<u>/s/ JOHN H. FORSGREN</u> John H. Forsgren	Director Dated: March 10, 2008
<u>/s/ JAMES J. NOBLE, M.A., F.C.A.</u> James J. Noble, M.A., F.C.A.	Director Dated: March 6, 2008
<u>/s/ ROBERT E. PATRICELLI, J.D.</u> Robert E. Patricelli, J.D.	Director Dated: March 4, 2008
<u>/s/ PATRICK J. ZENNER</u> Patrick J. Zenner	Director Dated: March 3, 2008



## EXHIBIT INDEX

Exhibit No.	Description	Incorporated by Reference to			Filed with this 10-K
		Form and SEC File No.	SEC Filing Date	Exhibit No.	
<b><i>Plan of Acquisition, Reorganization, Arrangement, Liquidation or Succession</i></b>					
2.1	Agreement and Plan of Merger, dated March 28, 2007, by and among 454 Life Sciences Corporation, Roche Holdings, Inc. and 13 Acquisitions, Inc.	8-K (000-23223)	4-2-2007	99.1	
<b><i>Certificate of Incorporation and By-Laws</i></b>					
3.1	Restated Certificate of Incorporation of the Registrant	S-1/A (333-38051)	3-13-1998	3.3	
3.2	Certificate of Amendment of the Restated Certificate of Incorporation of the Registrant	10-Q (000-23223)	8-12-2003	3.2	
3.3	Certificate of Designation, Series A Junior Participating Preferred Stock of the Registrant	10-K (000-23223)	3-26-2003	3.3	
3.4	Amended and Restated By-Laws of the Registrant	10-Q (000-23223)	11-4-2005	4.1	
<b><i>Instruments Defining the Rights of Security Holders</i></b>					
4.1	Form of Common Stock Certificate of the Registrant	S-1/A (333-38051)	3-13-1998	4.2	
4.2	Indenture, dated February 17, 2004 between the Registrant and The Bank of New York, as trustee	10-K (000-23223)	3-11-2004	4.5	
4.3	Stockholder Rights Agreement, dated March 27, 2002, by and between the Registrant and American Stock Transfer and Trust Company	10-K (000-23223)	4-1-2002	4.4	
<b><i>Material Contracts—Equity Compensation Plans and Related Agreements</i></b>					
10.1#	1993 Stock Option and Incentive Award Plan of the Registrant, as amended and restated through May 12, 1997	10-K (000-23223)	3-14-2005	10.1	
10.2#	1997 Employee, Director and Consultant Stock Plan of the Registrant, as amended and restated through January 26, 2005	8-K (000-23223)	2-7-2005	99.2	
10.3#	2007 Stock Incentive Plan of the Registrant	10-Q (000-23223)	8-9-2007	10.1	
10.4#	Form of Non-Qualified Stock Option Agreement (Pre May 3, 2006) (Standard) under the 1997 Employee, Director and Consultant Stock Plan of the Registrant	8-K (000-23223)	2-7-2005	99.3	
10.5#	Form of Non-Qualified Stock Option Agreement (Pre May 3, 2006) (Director & Officer) under the 1997 Employee, Director and Consultant Stock Plan of the Registrant	8-K (000-23223)	2-7-2005	99.4	

Exhibit No.	Description	Incorporated by Reference to			Filed with this 10-K
		Form and SEC File No.	SEC Filing Date	Exhibit No.	
10.6#	Form of Non-Qualified Stock Option Agreement (Effective May 3, 2006) (Standard) under the 1997 Employee, Director and Consultant Stock Plan of the Registrant	10-Q (000-23223)	8-9-2006	10.5	
10.7#	Form of Non-Qualified Stock Option Agreement (Effective May 3, 2006) (Director & Officer) under the 1997 Employee, Director and Consultant Stock Plan of the Registrant	10-Q (000-23223)	8-9-2006	10.6	
10.8#	Form of Nonstatutory Stock Option Agreement (Effective May 2, 2007) (Standard) under the 2007 Stock Incentive Plan of the Registrant	10-Q (000-23223)	8-9-2007	10.2	
10.9#	Form of Nonstatutory Stock Option Agreement (Effective January 24, 2008) under the 2007 Stock Incentive Plan of the Registrant				*
10.10#	Nonstatutory Stock Option Agreement, dated September 25, 2007, under the 2007 Stock Incentive Plan of the Registrant between the Registrant and Timothy M. Shannon, M.D.	10-Q (000-23223)	11-9-2007	10.3	
10.11#	Form of Incentive Stock Option Agreement under the 1997 Employee, Director and Consultant Stock Plan of the Registrant	8-K (000-23223)	2-7-2005	99.5	
10.12#	Form of Incentive Stock Option Agreement (Effective May 2, 2007) under the 2007 Stock Incentive Plan of the Registrant	10-Q (000-23223)	8-9-2007	10.3	
10.13#	Form of Restricted Stock Agreement under the 1997 Employee, Director and Consultant Stock Plan of the Registrant	8-K (000-23223)	2-7-2005	99.6	
10.14#	Form of Restricted Stock Agreement under the 2007 Stock Incentive Plan of the Registrant	10-Q (000-23223)	8-9-2007	10.3	
10.15#	Form of Restricted Stock Agreement under the 2007 Stock Incentive Plan of the Registrant for Restricted Stock Awards granted on May 25, 2007 to each of Frank M. Armstrong, Paul M. Finigan, Timothy M. Shannon, Elizabeth A. Whayland and David M. Wurzer	10-Q (000-23223)	11-9-2007	10.6	
10.16#	Executive Incentive Plan of the Registrant	8-K (000-23223)	2-7-2005	99.1	
10.17#	Revised Board of Directors Compensation Policy of the Registrant, approved March 29, 2006	10-Q (000-23223)	5-10-2006	10.6	
10.18#	Executive Officer Compensation Summary				*
10.19#	Non-Employee Director Compensation Summary				*

Exhibit No.	Description	Incorporated by Reference to			Filed with this 10-K
		Form and SEC File No.	SEC Filing Date	Exhibit No.	
<b>Material Contracts—Stock Purchase, Registration Rights and Underwriting Agreements</b>					
10.20	Purchase Agreement, dated February 10, 2004, between the Registrant and Bear, Stearns & Co., Inc.	10-K (000-23223)	3-11-2004	10.30	
10.21	Registration Rights Agreement, dated February 17, 2004 among the Registrant and Bear, Stearns & Co. Inc., as the initial purchaser	10-K (000-23223)	3-11-2004	10.31	
10.22	Underwriting Agreement, dated August 9, 2005, by and between the Registrant and Bear, Stearns & Co., Inc.	8-K (000-23223)	8-10-2005	1.1	
10.23	Stock Purchase Agreement, dated January 12, 2001, by and between Bayer AG and the Registrant	10-K (000-23223)	3-28-2001	10.26	
10.24#	Indemnity Agreement, dated August 1, 2007, between 454 Life Sciences Corporation and the Registrant	10-Q (000-23223)	11-9-2007	10.5	
<b>Material Contracts—Leases</b>					
10.25	Lease, as amended and restated, through July 1, 2005, (Branford) by and between T.K.J. Associates, LLC and the Registrant	10-Q (000-23223)	11-4-2005	10.3	
10.26	Lease Agreement, dated December 23, 1996 (New Haven) by and between the Registrant and Fusco Harbour Associates, LLC	S-1 (333-38051)	10-16-1997	10.1	
10.27	Memorandum of Lease for Lease Agreement, dated December 23, 1996 and amended on October 27, 1997 and August 31, 1998 (New Haven) between the Registrant and Fusco Harbour Associates, LLC	10-K (000-23223)	3-26-1999	10.1	
10.28	Third, Fourth, Fifth and Sixth Amendments to Lease Agreements, dated January 1, 2001, June 5, 2001, March 12, 2002 and May 8, 2002, respectively, (New Haven) by and between the Registrant and Fusco Harbour Associates, LLC	10-K (000-23223)	3-26-2003	10.1	
10.29#	Assignment and Assumption of Lease with Landlord's Consent and Release, dated August 1, 2007, between ZFI Group, LLC, 454 Life Sciences Corporation and the Registrant	10-Q (000-23223)	11-9-2007	10.4	
<b>Material Contracts—Collaboration, Supply, License, Distribution Agreements</b>					
10.30†	Metabolic Disorder Collaboration Agreement, dated January 12, 2001, by and between Bayer Corporation and the Registrant	10-K (000-23223)	3-28-2001	10.24	
10.31†	Amendment, dated November 11, 2005, to Metabolic Disorder Collaboration Agreement, dated January 12, 2001, by and between Bayer Corporation and the Registrant	10-K (000-23223)	3-14-2006	10.30	

Exhibit No.	Description	Incorporated by Reference to			Filed with this 10-K
		Form and SEC File No.	SEC Filing Date	Exhibit No.	
10.32†	Amendment, dated May 30, 2006, to Metabolic Disorder Collaboration Agreement, dated January 12, 2001, by and between Bayer Corporation and the Registrant	10-Q (000-23223)	8-9-2006	10.1	
10.33†	Pharmacogenomics Agreement, dated January 12, 2001, by and between the Registrant and Bayer AG	10-K (000-23223)	3-28-2001	10.25	
10.34†	Amendment dated December 19, 2003 to Pharmacogenomics Agreement, dated January 12, 2001, by and between the Registrant and Bayer AG	10-K (000-23223)	3-11-2004	10.12	
10.35†	Second Restated Collaboration Agreement, dated April 12, 2004 and amended October 19, 2004, between Abgenix, Inc. and the Registrant	10-Q (000-23223)	8-6-2004	10.1	
10.36†	License and Collaboration Agreement, dated as of June 3, 2004, between TopoTarget A/S and the Registrant	10-Q (000-23223)	8-6-2004	10.2	
10.37†	Collaboration Agreement, dated June 18, 2004, between Seattle Genetics, Inc. and the Registrant	10-K (000-23223)	3-14-2006	10.38	
<b><i>Material Contracts—Employment Agreements</i></b>					
10.38#	Amended and Restated Employment Agreement, dated September 1, 2006, between the Registrant and Frank M. Armstrong, M.D.	8-K (000-23223)	9-8-2006	99.1	
10.39#	Amendment, dated January 24, 2007, to Amended and Restated Employment Agreement dated September 1, 2006 between the Registrant and Frank M. Armstrong, M.D.	10-Q (000-23223)	5-9-2007	10.1	
10.40#	Transition and Severance Agreement, dated September 19, 2007, between the Registrant and Frank M. Armstrong, M.D.	10-Q (000-23223)	11-9-2007	10.1	
10.41#	Employment Agreement, dated September 1, 2006, between the Registrant and Paul M. Finigan	8-K (000-23223)	9-8-2006	99.2	
10.42#	Amendment, dated January 24, 2007, to Employment Agreement dated September 1, 2006 between the Registrant and Paul M. Finigan	10-Q (000-23223)	5-9-2007	10.2	
10.43#	Amended and Restated Employment Agreement, dated September 19, 2007, between the Registrant and Timothy M. Shannon, M.D.	10-Q (000-23223)	11-9-2007	10.2	
10.44#	Amended and Restated Employment Agreement, dated September 1, 2006, between the Registrant and Elizabeth A. Wayland	8-K (000-23223)	9-8-2006	99.4	
10.45#	Amendment, dated January 24, 2007, to Amended and Restated Employment Agreement dated September 1, 2006 between the Registrant and Elizabeth A. Wayland	10-Q (000-23223)	5-9-2007	10.4	

Exhibit No.	Description	Incorporated by Reference to			Filed with this 10-K
		Form and SEC File No.	SEC Filing Date	Exhibit No.	
10.46#	Separation Agreement, dated December 27, 2007, between the Registrant and Elizabeth A. Whayland				*
10.47#	Amended and Restated Employment Agreement, dated September 1, 2006, between the Registrant and David M. Wurzer	8-K (000-23223)	9-8-2006	99.5	
10.48#	Amendment, dated January 24, 2007, to Amended and Restated Employment Agreement dated September 1, 2006 between the Registrant and David M. Wurzer	10-Q (000-23223)	5-9-2007	10.5	
10.49#	Amendment, dated December 17, 2007, to Amended and Restated Employment Agreement, dated September 1, 2006, as amended, between the Registrant and David M. Wurzer				*
10.50#	Employment Agreement, dated December 14, 2007, between the Registrant and Sean A. Cassidy				*

***Additional Exhibits***

12.1	Ratio of Earnings to Fixed Charges				*
14.1	Code of Ethics for the Chief Executive Officer and Senior Financial Officers of the Registrant, dated November 12, 2003	10-K (000-23223)	3-11-2004	14.1	
14.2	Corporate Code of Conduct of the Registrant, dated March 1, 2004	10-K (000-23223)	3-11-2004	14.2	
21.1	Subsidiaries of the Registrant				*
23.1	Consent of Deloitte & Touche LLP				*
31.1	Certification by Chief Executive Officer pursuant to Rule 13a-14(a) and 15d-14(a) of the Exchange Act, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002				*
31.2	Certification by Chief Financial Officer pursuant to Rule 13a-14(a) and 15d-14(a) of the Exchange Act, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002				*
32.1	Certification by Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002				*

# Management contracts or compensatory plans or arrangements required to be filed as an exhibit hereto pursuant to Item 15(a) of Form 10-K.

† Confidential treatment requested or granted as to certain portions, which portions have been separately filed with the Securities and Exchange Commission.

## BOARD OF DIRECTORS

### **ROBERT E. PATRICELLI, J.D.**

Non-executive Chairman of the Board of CuraGen Corporation

Chairman and Chief Executive Officer of Women's Health USA Inc., and Evolution Benefits, Inc.

### **FRANK M. ARMSTRONG, M.D.**

Chief Executive Officer of Fulcrum Pharma plc

### **VINCENT T. DeVITA, JR., M.D.**

Amy and Joseph Perella Professor of Medicine at Yale Cancer Center and Yale School of Medicine and past Director of the National Cancer Institute

### **JOHN H. FORSGREN**

Retired Vice Chairman of the Board, Executive Vice President and Chief Financial Officer of Northeast Utilities Systems

### **JAMES J. NOBLE, M.A., F.C.A.**

Former Chief Executive Officer of Avidex Ltd.

### **TIMOTHY M. SHANNON, M.D.**

President and Chief Executive Officer of CuraGen Corporation

### **PATRICK J. ZENNER**

Former President and Chief Executive Officer of Hoffmann-La Roche Inc. North America

## MANAGEMENT TEAM

### **TIMOTHY SHANNON, M.D.**

President and Chief Executive Officer

### **PAUL FINIGAN, J.D.**

Executive Vice President and General Counsel

### **SEAN CASSIDY, C.P.A.**

Vice President and Chief Financial Officer

### **RONIT SIMANTOV, M.D.**

Vice President of Medical Development and Chief Medical Officer

### **ELIZABETH CROWLEY**

Vice President of Development Operations

### **CYRUS KARKARIA, Ph.D.**

Vice President of BPS and Operations

### **HENRI LICHENSTEIN, Ph.D.**

Vice President of Product Development

### **HANS SCHOLL, Ph.D.**

Vice President of Regulatory Affairs and Quality Assurance

## CORPORATE INFORMATION

### *Annual Meeting*

The Annual Meeting of Stockholders will be held on Wednesday, May 21, 2008 at CuraGen's corporate headquarters. Detailed information about the meeting is contained in the Notice of Annual Meeting and Proxy Statement sent with a copy of the annual report to each stockholder of record as of March 24, 2008.

### *Corporate Headquarters*

CuraGen Corporation  
322 East Main Street  
Branford, CT 06405  
Phone: (203) 481-1104  
(888) 436-6642  
Fax: (203) 483-2552

### *Corporate Website*

For further information, the company's website provides additional information on CuraGen's research and development programs, clinical trials, investor relations, and career opportunities. The site can be accessed at [www.curagen.com](http://www.curagen.com).

### *Stock Listing*

CuraGen is listed on the NASDAQ Global Market under the symbol CRGN.

### *Transfer Agent*

Communications concerning stock transfer requirements, lost certificates and change of address should be directed to the company's transfer agent: American Stock Transfer & Trust Company  
59 Maiden Lane  
Plaza Level  
New York, NY 10038  
Phone: (800) 937-5449  
Fax: (718) 236-2641  
Web: [www.amstock.com](http://www.amstock.com)

### *Investor Relations*

CuraGen invites interested parties to contact: Investor Relations Department  
CuraGen Corporation  
322 East Main Street  
Branford, CT 06405  
Phone: (888)-436-6642, ext. 6555  
Fax: (203) 483-2550  
Email: [investors@curagen.com](mailto:investors@curagen.com)  
Web: [www.curagen.com](http://www.curagen.com)

### *Independent Auditors*

Deloitte & Touche LLP  
Hartford, CT

Statements contained or incorporated by reference in this Annual Report that are not based on historical fact are "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Exchange Act. Forward-looking statements can be identified by terminology such as "anticipate," "believe," "could," "could increase the likelihood," "estimate," "expect," "intend," "is planned," "may," "should," "will," "will enable," "would be expected," "look forward," "may provide," "would" or similar terms, variations of such terms or the negative of those terms. These forward-looking statements regarding future events and our future results are based on current expectations, estimates, forecasts and projections, and the beliefs and assumptions of our management. We cannot assure investors that our expectations and assumptions will prove to have been correct. Important factors could cause our actual results to differ materially from those indicated or implied by forward looking statements. Such factors that could cause or contribute to such differences include those factors discussed in our Annual Report on Form 10-K for the year ended December 31, 2007 under the section "Risk Factors" as well as other documents that may be filed by us from time to time with the Securities and Exchange Commission. We undertake no intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

CuraGen is a registered trade and service mark of CuraGen Corporation.

© 2008 CuraGen Corporation. Designed by 1010 Creative Studio, LLC. Printed in the U.S.A. All rights reserved.

[THIS PAGE INTENTIONALLY LEFT BLANK]

AS CURAGEN'S ONCOLOGY PIPELINE CONTINUES TO BE ADVANCED THROUGH DEVELOPMENT IN 2008, UPDATED RESULTS FROM THE ONGOING CLINICAL TRIALS EVALUATING CR011-vcMMAE AND BELINOSTAT ARE EXPECTED TO BE REPORTED. MILESTONES FOR 2008 INCLUDE:

#### CR011-vcMMAE:

- ▶ Advance CR011-vcMMAE into the efficacy portion of the Phase I/II clinical trial for the treatment of melanoma during the second quarter of 2008.
- ▶ Report updated Phase I/II clinical trial results of CR011-vcMMAE for the treatment of melanoma at the 2008 ASCO Annual Meeting.

#### BELINOSTAT:

- ▶ Present updated Phase II results of belinostat in combination with carboplatin and paclitaxel (BelCaP) for the treatment of ovarian cancer at the 2008 ASCO Annual Meeting.
- ▶ Report updated Phase II results of belinostat for the treatment of peripheral T-cell lymphoma and cutaneous T-cell lymphoma during the second quarter of 2008.
- ▶ Initiate a Phase III clinical trial of belinostat for the treatment of peripheral T-cell lymphoma by the fourth quarter of 2008.

For additional information regarding clinical trials being conducted with CuraGen's investigational drugs, please visit our website at [www.curagen.com](http://www.curagen.com).

PROJECT	INDICATION	PRECLINICAL	PHASE I	PHASE IB	PHASE II
<b>CR011-vcMMAE</b> ANTIBODY-DRUG CONJUGATE	<b>METASTATIC MELANOMA</b>	MONOTHERAPY			
	<b>BREAST CANCER</b>				
	<b>BRAIN TUMORS</b>				
<hr/>					
<b>BELINOSTAT</b> HDAC INHIBITOR	<b>CURAGEN SPONSORED</b>				
	<b>CUTANEOUS/PERIPHERAL T-CELL LYMPHOMA</b>	MONOTHERAPY			
	<b>OVARIAN CANCER</b>	PLUS CARBOPLATIN/PACLITAXEL			
	<b>BLADDER CANCER</b>	PLUS CARBOPLATIN/PACLITAXEL			
	<b>ACUTE MYELOGENOUS LEUKEMIA</b>	CONTINUOUS IV PLUS IDARUBICIN			
	<b>SOFT TISSUE SARCOMA</b>	PLUS DOXORUBICIN			
	<b>SOLID TUMORS</b>	ORAL BELINOSTAT			
	<b>NCI SPONSORED</b>				
	<b>SOLID TUMORS</b>				
	<b>HEMATOLOGIC MALIGNANCIES</b>				
<hr/>					
<b>CR014-vcMMAE</b> ANTIBODY-DRUG CONJUGATE	<b>KIDNEY &amp; OVARIAN CANCERS</b>				
<hr/>					
<b>CR012</b> ANTIBODY	<b>OVARIAN &amp; COLORECTAL CANCERS</b>				
<hr/>					
<b>PX006491</b> HDAC INHIBITOR	<b>ARTHRITIS &amp; LUPUS</b>				

Note: Unless otherwise specified intravenous (IV) belinostat is being administered. Phase I and beyond Clinical development. CuraGen has not received marketing approval for any of its products.



## CURAGEN

Corporate Headquarters  
322 East Main Street  
Branford, CT 06405

Phone: (203) 491-1104

Fax: (203) 499-2552

Web: [www.curagen.com](http://www.curagen.com)

END